

**APPENDIX F-2**  
**Evaluation of Potential Nitrate Mass Loading**

**Evaluation of Potential Nitrate Mass Loading  
Peaceful Valley Ranch,  
Jamul, CA**

**DEH No. VHO698  
TM 5341RPL5, GPA 03-05, R03-015, MUP 04-048, Log No. 04-19-007  
Assessor Parcel Nos: 597-050-13, 597-060-02, and 597-070-07**

**Prepared For:**

**San Diego County Department of Environmental  
Land and Water Quality Division  
Attention: Scott Rosecrans  
P.O. Box 129261  
San Diego, CA 92112-9261**

**April 20, 2007**

**On Behalf Of:  
Peaceful Valley Ranch, LLC**

**Prepared By:**

**Wiedlin & Associates, Inc.  
*Applications in Groundwater Science***

**Evaluation of Potential Nitrate Mass Loading  
Peaceful Valley Ranch,  
Jamul, CA**

**DEH No. VHO698  
TM 5341RPL5, GPA 03-05, R03-015, MUP 04-048, Log No. 04-19-007  
Assessor Parcel Nos: 597-050-13, 597-060-02, and 597-070-07**

**Prepared For:**

**San Diego County Department of Environmental  
Land and Water Quality Division  
Attention: Scott Rosecrans  
P.O. Box 129261  
San Diego, CA 92112-9261**

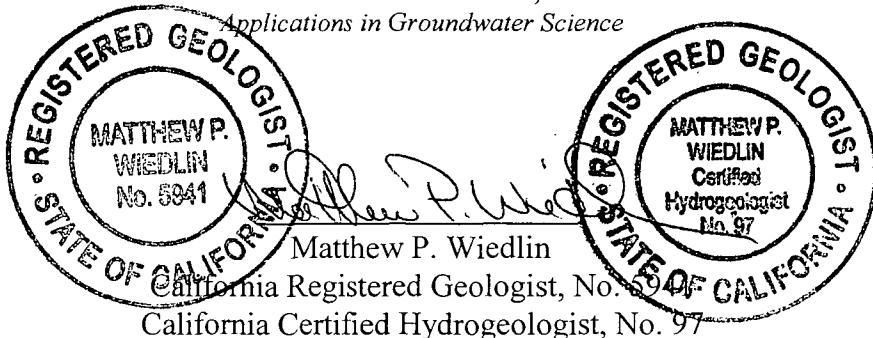
**April 20, 2007**

**On Behalf Of:  
Peaceful Valley Ranch, LLC**

**Prepared By:**

**Wiedlin & Associates, Inc.**

*Applications in Groundwater Science*



## TABLE OF CONTENTS

INTRODUCTION .....	1
PHYSICAL SETTING .....	2
TOPOGRAPHIC SETTING .....	2
CLIMATE .....	2
LAND USE .....	2
HYDROGEOLOGIC CONDITIONS .....	3
GEOLOGY .....	3
WATER WELL INFORMATION .....	3
HYDROGEOLOGIC UNITS .....	3
GROUNDWATER OCCURRENCE .....	4
Groundwater Flow Direction and Gradient .....	5
Groundwater Flow From Site .....	5
TOTAL DISSOLVED SOLIDS AND NITRATE IN GROUNDWATER .....	7
TDS Concentrations in Groundwater .....	8
Nitrate Concentrations in Groundwater .....	8
NITRATE MASS BALANCE .....	9
DESCRIPTION OF WATER INFLOW AND OUTFLOW RATES .....	10
DESCRIPTION OF NITRATE CONCENTRATION .....	11
RESULTANT AVERAGE NITRATE CONCENTRATION IN GROUNDWATER ..	11
SUMMARY AND CONCLUSION .....	12
REFERENCES .....	13

## TABLES

- Table 1 Water Well and Groundwater Elevation Information  
Table 2 Nitrate and Total Dissolved Solids in Groundwater

## FIGURES

- Figure 1 Project Site, Surrounding Watershed, and Cross Section Locations  
Figure 2 Well Locations  
Figure 3 Hydrogeologic Cross Section A-A'  
Figure 4 Groundwater Elevations, June 2004  
Figure 5 Nitrate and Total Dissolved Solids  
Figure 6 Hydrogeologic Cross Section, TDS Concentrations  
Figure 7 Hydrogeologic Cross Section, Nitrate Concentrations

## APPENDICES

- Appendix A Aquifer Test Data & Well Logs  
A-1 Constant Discharge Test  
A-2 Step Drawdown Tests  
A-3 Slug Tests  
A-4 Well Logs  
Appendix B Laboratory Reports  
Appendix C Rancho Jamul Estates Population Information

## INTRODUCTION

This report has been prepared in response to the San Diego County Department of Environmental Health's (DEH) December 31, 2003 letter to Malcolm Vinje of Vinje Middleton Engineers regarding the proposed Peaceful Valley Ranch subdivision. Peaceful Valley Ranch is in the unincorporated community of Jamul, just east of Highway 94, south of Olive Vista Road and north of Rancho Jamul Drive (Figure 1). The site is immediately north of the Rancho Jamul Ecological Reserve and Hollenbeck Wildlife Area, managed by the California Department of Fish and Game. The Peaceful Valley Ranch project proposes the subdivision of 181.31-acres for an estate residential development, equestrian uses and amenities, and fire service facilities. The development plan includes a total of 57 lots consisting of:

- 46 – new estate residential lots ranging in size from a minimum of 2-acres up to approximately 6.2-acres (Lots 1-4, 6-47);
- 1 – estate residential lot of 4.0-acres for the existing Ranch House (Lot 5);
- 1 — 6.7-acre equestrian facility lot (Lot 48);
- 1 - 3.7-acre lot reserved for a new joint-use fire station and administrative offices of the Regional Fire Protection District and US Fish and Wildlife Service (Lot 49);
- 1 - 3.7-acre open space lot for the protection of biological resources (Lot 50);
- 1 - 28.9 acre private horse stable and training facilities / polo field lot (Lot 51); and,
- 6 - private roadway lots (Lots 52-57) (Figure 2).

The report specifically addresses item 9 in DEH's letter; the potential for elevated nitrate concentrations in groundwater as a result of leach field effluent. Nitrate loading was evaluated using the mass balance equation cited in Technical Report, Review of Subsurface Wastewater Disposal Policy, September 30, 1987 by Professor David Huntley, San Diego State University.

To support this approach, estimates of the groundwater flow rate into the site, existing nitrate concentrations, and future nitrate loading as a result of septic leach field percolation have been developed. The estimate of groundwater flow into the site was developed based on onsite transmissivity and onsite groundwater elevation measurements. Current nitrate and total dissolved solid concentrations were assessed by collecting and analyzing onsite groundwater samples. Future nitrate loading from septic discharge was developed based on Jamul census data and local survey data of population densities per household at Rancho Jamul Estates, an adjacent neighborhood that is comparable in character to the proposed Peaceful Valley Ranch.

The report first describes the physical setting surrounding the site including topography and land use. A discussion of hydrogeologic conditions follows that includes rock type, relevant structure, groundwater occurrence, and aquifer test results. Water quality conditions at the site are described with respect to nitrate and total dissolved solids (TDS). Based on this information, a nitrate mass balance is calculated for the proposed development.

## **PHYSICAL SETTING**

The following provides a description of the topography, climate, and land use of the watershed surrounding the project site.

### **TOPOGRAPHIC SETTING**

Peaceful Valley Ranch ranges in elevation from approximately 1,108 feet above mean sea level (ft msl) to 828 ft msl (Figure 1). Within Peaceful Valley Ranch there are two small drainage basins. The western basin is generally characterized as rolling hillside terrain with vertical relief between the peaks and valleys generally less than 50 feet. This portion of the property is drained by an ephemeral creek that parallels Highway 94. The eastern portion of the site is characterized by an elongated centrally located basin with an ascending hillside terrain to the east, west, and north. This eastern basin is drained by a larger, southward trending, ephemeral creek.

Peaceful Valley Ranch lies within a 4,300-acre watershed whose northern/upstream boundary occurs north of Skyline Truck Trail at an elevation of about 2,100 ft msl (Figure 1). The watershed drains southwestward via a series of canyons that merge into ephemeral creeks upstream and downstream of Peaceful Valley Ranch. The eastern and western boundaries of the watershed are defined by secondary northeast-southwest trending ridges. The western ridge peaks at an elevation slightly greater than 1,500 ft msl. The eastern ridge is more prominent and peaks at an elevation of about 2,300 ft msl. The southern boundary of the watershed, for the purposes of this project, is defined by the confluence of the two ephemeral creeks that drain Peaceful Valley Ranch.

The southern boundary of the project site is approximately a 1.3 miles north of the southern boundary of the watershed as defined herein. From the northern boundary of the site to the southern boundary of the study area/watershed, the valley floor slopes southward at a grade of approximately 1.3 percent.

### **CLIMATE**

For the purposes of this study, climate is described in terms of annual rainfall and evapotranspiration within the watershed. The County of San Diego Draft Precipitation Map indicates that the watershed has an average annual rainfall of 15 to 18 inches over a 30 year period of record. Potential evapotranspiration rates have been assessed by regional data provided by the California Irrigation Management Information System (CIMIS). CIMIS has created a state wide PET map comprised of 18 evaporative zones ([www.cimis.water.ca.gov/cimis/images/etomap.jpg](http://www.cimis.water.ca.gov/cimis/images/etomap.jpg)). The study area is in Zone 9, which has on average about 55 inches of PET per year.

### **LAND USE**

Under the current general plan, the portion of the watershed north of Peaceful Valley Ranch is zoned for one and two acre lots. Most of the area south of Peaceful Valley Ranch is part of the Rancho Jamul Ecological Reserve and the Hollenbeck Canyon Wildlife Area. These areas encompass

approximately 600 acres of the watershed defined herein and continue westward and southward beyond the limits of the watershed.

## **HYDROGEOLOGIC CONDITIONS**

The following describes general geologic conditions, well information, hydrogeologic units, groundwater level information, and water quality information.

### **GEOLOGY**

The project site and the surrounding watershed include, from oldest to youngest, Mesozoic intrusive igneous, or plutonic rocks of the Peninsular Ranges Batholith, decomposed igneous rock (a.k.a. residuum) and Quaternary alluvium (California Division of Mines and Geology, 1962).

Lower sections of the property within the eastern drainage basin are underlain by alluvial deposits to depths of nearly 20 feet (Vinje and Middleton, 2003). The alluvium is typically silty sand that is soft to loose near the surface and increases in density with depth. Residuum overlies the igneous bedrock and underlies alluvium where present. The thickness of residuum has not been characterized at the site. However, two hand dug wells, PV-3 at the site and the Hendrix Well on the property northwest of the site, suggest the contact between residuum and the underlying bedrock occurs at a depth of approximately 28 feet. Accounting for alluvial sediments that may be nearly 20 feet deep, the thickness of residuum underlying alluvial sediments may be less than 10 feet.

There are numerous drainages in the Jamul area including those beyond the limits of the immediate watershed trend in a northeast-southwest direction. This drainage pattern may represent underlying geologic structures such as fracture zones or pluton contacts where rock is more susceptible to weathering and erosion. Through preferential erosion where the crystalline rock is more weathered, drainages have become aligned, over geologic time, with the regional structure. Groundwater storage and flow rates within the underlying bedrock are likely to be greater in these areas due to higher secondary porosity and permeability in the fractured zone.

### **WATER WELL INFORMATION**

Five production wells have been installed at Peaceful Valley Ranch (Table 1, Figure 2). Well yield has been estimated by Earth Tech, Inc. at wells PV-1 and PV-2 based on pumping test data (Appendix A). Earth Tech estimated that wells PV-1 and PV-2 had a long term pumping rates of 2 gallons per minute (gpm) and 50 gpm respectively (Earth Tech, 2003). PV-4 has supported commercial agricultural activity and likely has a relatively high, but unquantified well yield.

### **HYDROGEOLOGIC UNITS**

Four hydrogeologic units have been identified as slightly-fractured igneous rock, moderately-fractured igneous rock, residuum, and alluvium (Figure 3, Cross Section A-A'). The location of Cross Section A-A' is depicted on Figure 1. The slightly-fractured igneous rock unit, refers to igneous rock that comprises the topographic highlands and occurs at some undefined depth below

the valley floor. This unit underlies the entire 4,300 acre watershed. Well yields are often limited to a few gallons a minute in this unit and this unit's capability of transmitting and storing water is fairly low. Well PV-1 is located in the topographic lowland, but at the toe of a moderately steep slope. PV-1 has a low yield and likely encounters slightly fractured bedrock. Wiedlin & Associates, Inc. calculated a transmissivity of 0.002 feet squared per minute from Earth Tech's pumping test data collected at PV-1 (Appendix A). With a well depth of 565 feet and a depth to groundwater of approximately 25 feet, the average hydraulic conductivity of the rock at well PV-1 is  $4 \times 10^{-6}$  feet per minute. This is considered the low end of the range for fractured igneous rock (Freeze and Cherry, 1979).

The moderately-fractured igneous rock unit, occurs within the topographic lowlands. Wells PV-2 and PV-4 are located in this area and experience good groundwater production. Wiedlin & Associates, Inc. calculated a transmissivity of 0.28 feet<sup>2</sup> per minute from Earth Tech's pumping test data collected at PV-2 (Appendix A). With a well depth of 331 feet and a depth to groundwater of approximately 16 feet, the average hydraulic conductivity of the rock at well PV-2 is approximately  $9 \times 10^{-4}$  feet per minute . This is considered the middle of the range for fractured igneous rock (Freeze and Cherry, 1979). This step drawdown test was conducted for approximately 6-1/2 hours at a maximum discharge of 21 gpm and a maximum drawdown of slightly more than 16 feet. Based on this data, the step drawdown test did not extensively stress the fractured rock aquifer. According to Earth Tech (2004), it was difficult to get the test pump installed at well PV-2 because the boring apparently was not plumb. Hence, installation of a larger, higher capacity pump may not be practical.

A more extensive aquifer test was conducted at well PV-4. A step drawdown test was conducted in October 2004, followed by a 53-hour, 42 gpm constant discharge test in mid-February 2005. The constant discharge test data, as analyzed using the Theis Recovery Method, yielded a transmissivity of 2 feet<sup>2</sup> per minute (Appendix A). During the 53-hour test, the 136-foot deep well experienced approximately 30 feet of drawdown. Hence the test induced a greater stress on a shorter interval of the fractured rock aquifer. For this reason, this test provides the best measure of the transmissivity of the moderately-fractured igneous rock unit. With a well depth of 136 feet and a depth to groundwater of approximately 15 feet, the average hydraulic conductivity of the rock at well PV-4 is approximately  $2 \times 10^{-2}$  feet per minute. This is considered the upper end of the range for fractured igneous rock (Freeze and Cherry, 1979).

Residuum, appears to be of limited thickness at the project site. Hand dug wells probably tap this unit along with the overlying alluvial sediments. Residuum is typically low yielding, but can provide relatively high groundwater storage capacity. Under current conditions alluvial sediments at the site probably occur mostly above the water table. Under non-drought conditions, alluvium may yield and store groundwater.

## **GROUNDWATER OCCURRENCE**

This discussion assesses groundwater flow direction, the magnitude of the water table gradient, and estimates the rate of groundwater flow from the site.

## **Groundwater Flow Direction and Gradient**

Groundwater elevation data obtained on January 27, 2005 have been contoured in plan view (Figure 4). Groundwater elevation data were contoured using a linear interpolation algorithm using the contouring program, Surfer 7.0 (Golden Software, 1999) and manually adjusted to account for groundwater elevation constraints provided by dry wells, as well as adjustments reflecting topography. Groundwater elevation contours indicate a general northerly to southerly direction of flow consistent with the general topographic grade. Hydraulic gradients vary across the site with steep gradients, 0.08, underlying topographic highs and slightly fractured igneous bedrock, while lesser gradients, 0.016, occur along the main drainage along the eastern portion of the property where moderately fractured bedrock and permeable alluvium occur.

Comparing groundwater elevations at adjacent wells that are completed at different depths such as PV-1 and PV-3, or PV-2 and Boring J, provides information on the vertical component of flow. Groundwater elevations were similar for the adjacent wells (Table 1). This indicates that there is not an important component of downward or upward flow and groundwater flow through the site is essentially horizontal. Well PV-2 is located in the main creek bed and is set in a concrete block to protect it from surface water flow. The casing stands several feet above the bottom of the creek. During the winter of 2004-2005, the water level in PV-2 was higher than the creek bottom indicating the groundwater is discharging into the creek during this time period and temporarily sustaining surface water flow. From February 2004 to November 2004, groundwater levels at PV-2 were well below the bottom of the creek and no surface water flow was occurring in the creek.

## **Groundwater Flow From Site**

The rate of groundwater flow into the project site can be estimated using a cross section analysis (Figure 3) that relies on the transmissivity of the rock, the groundwater gradient, and the width of moderately fractured igneous rock at the down gradient end of the project site as measured perpendicular to the groundwater flow direction (Equation 1).

Transmissivity is the product of the aquifer thickness and the hydraulic conductivity of the aquifer. Recognizing that transmissivity values can vary slightly over time as groundwater levels fluctuate and the hydraulic conductivity can vary spatially even within the moderately fractured rock zone, a range of flow calculations have been prepared to reflect this uncertainty. Accordingly, groundwater flow rate calculations have been prepared based on the transmissivity measured from the February 2005 aquifer test, 2 feet<sup>2</sup> per minute, when groundwater levels were approaching, but not yet at, peak levels for that season. Additionally groundwater flow rate calculations have been prepared that reflect the groundwater level measured at PV-4 in late September 2004 at the end of the drought and account for the spatial variation in hydraulic conductivity by using a lower transmissivity in the calculation.

The depth to groundwater at well PV-4 rose from approximately 29 feet below TOC to approximately 15 feet below TOC between late September 2004 and the aquifer test in mid-February 2005. Though the depth of the fractured rock aquifer has not been explored, it is likely several hundred feet deeper than the total depth of PV-4, 136 feet. The bottom of the aquifer is very

conservatively assumed to be 136 feet. Accordingly, aquifer thickness is estimated at approximately 107 feet at the end of the drought and approximately 121 feet at the time of the aquifer test. Therefore aquifer thickness increased by 13 percent between the end of the drought and the time of the aquifer test. Because the aquifer thickness is most likely much greater than this, the effect drought has on the variation of transmissivity is most likely being over estimated in this analysis. Assuming that under drought conditions, aquifer thickness is 15 percent less than at the time of the test, the transmissivity at well PV-4 would be reduced from 2 feet<sup>2</sup> per minute to 1.7 feet<sup>2</sup> per minute. Additionally, recognizing that hydraulic conductivity varies spatially within the moderately fractured zone and may be less (it may also be more) than that measured at well PV-4, transmissivity is reduced again by 50 percent, or 0.85 feet<sup>2</sup> per minute, to support a conservatively low estimate of groundwater flow.

The groundwater flow rate through the moderately fractured rock zone at the site along the southern boundary of the property can be calculated from Equation 1.

$$Q = T * W * i \quad (1)$$

Where:

$Q$  = flow rate, cubic feet per minute (ft<sup>3</sup>/min)

$T$  = transmissivity, square feet per minute (ft<sup>2</sup>/min)

$W$  = estimated width of moderately fractured igneous rock from the intermittent stream to the eastern property boundary, ft

$i$  = hydraulic gradient; the vertical drop in the water table elevation divided by the horizontal distance the drop occurred in, dimensionless.

Under wet season conditions groundwater flow occurs in the alluvium and the moderately fractured bedrock results in two transmissivity values and two corresponding widths. Based on the surface casing depth of 25 feet at PV-4, the depth of alluvium is approximately 25 feet. Since depth to water at PV-4 in February was approximately 15 feet, the saturated thickness of alluvium is approximately 10 feet.

$T_1$  = 2.0 ft<sup>2</sup>/min

$T_2$  = 10 ft deep  $\times$   $(6 \times 10^{-3}$  ft/min +  $2 \times 10^{-2}$  ft/min)/2 =  $1.3 \times 10^{-1}$  ft<sup>2</sup>/min

$W_1$  = 1,500 ft

$W_2$  = 375 ft

$i$  = 0.016

Solving for  $Q$ :

$$\begin{aligned} Q &= [(2.0 \text{ ft}^2/\text{min} * 1,500 \text{ ft}) + (0.13 \text{ ft}^2/\text{min} * 375 \text{ ft})] * 0.016 \\ Q &= [3,000 \text{ ft}^3/\text{min} + 49 \text{ ft}^3/\text{min}] * 0.016 \end{aligned}$$

$$Q = 49 \text{ ft}^3/\text{min}$$

Converting from cubic feet per minute to acre-feet per year;

$$Q = \frac{49 \text{ ft}^3/\text{min} * 1,440 \text{ minutes} * 365 \text{ days} * 1 \text{ acre}}{\text{day} \quad \text{year} \quad 43,560 \text{ ft}^3}$$

$$Q = 590 \text{ acre-feet per year}$$

For the conservative assessment of groundwater flow where drought conditions prevail and hydraulic conductivity is assumed to be 50 percent lower than that measured during the aquifer test, the water table will be below the alluvium along the southern boundary of the site. Therefore groundwater flow is not occurring in this hydrogeologic unit under these assumptions at Peaceful Valley Ranch.

$$T_1 = 0.85 \text{ ft}^2/\text{min}$$

$$T_2 = 0 \text{ ft deep} \times (6 \times 10^{-3} + 2 \times 10^{-2} \text{ ft}/\text{min})/2 = 0 \text{ ft}^2/\text{min}$$

$$W_1 = 1,500 \text{ ft}$$

$$W_2 = 0 \text{ ft}$$

$$i = 0.016$$

Solving for Q;

$$Q = [(0.85 \text{ ft}^2/\text{min} * 1,500 \text{ ft}) + (0.0 \text{ ft}^2/\text{min} * 0 \text{ ft})] * 0.016$$

$$Q = [2,250 \text{ ft}^3/\text{min} + 0 \text{ ft}^3/\text{min}] * 0.016$$

$$Q = 20.4 \text{ ft}^3/\text{min}$$

Converting from cubic feet per minute to acre-feet per year;

$$Q = \frac{20.4 \text{ ft}^3/\text{min} * 1,440 \text{ minutes} * 365 \text{ days} * 1 \text{ acre}}{\text{day} \quad \text{year} \quad 43,560 \text{ ft}^3}$$

$$Q = 250 \text{ acre-feet per year}$$

Estimated groundwater flow out of Peaceful Valley Ranch ranges from approximately 590 acre-feet to 250 acre-feet per year depending upon seasonal conditions and conservative estimates regarding the spatial variation in hydraulic conductivity. These flow rate estimates do not include groundwater flow beyond a depth of 136 feet, the depth of well PV-4. Nor does it include groundwater flow in the slightly fractured igneous rock.

## **TOTAL DISSOLVED SOLIDS AND NITRATE IN GROUNDWATER**

Groundwater samples were collected from 8 wells and septic leach field exploration borings over five different sampling events (Table 2). Samples were analyzed for TDS and nitrate, reported as nitrogen.

### **TDS Concentrations in Groundwater**

TDS concentrations in groundwater ranged from 367 milligrams per liter (mg/l) to 1,520 mg/l (Table 2, Figure 5). However, six of the eight sample locations ranged from 912 mg/l to 1,520 mg/l. The RWQCB's secondary water quality objective for TDS in this area is 500 mg/l. The two samples with TDS concentrations less than 500 mg/l were collected in February 2004 at Septic Exploration Borings D and E at concentrations of 373 and 367 mg/l. Groundwater samples were collected from these two borings again in January 2005 when groundwater levels were approximately 7 to 8 feet higher. TDS concentrations were 1,220 and 918 mg/l respectively in January 2005.

Looking in cross sectional view of the distribution of TDS concentrations in groundwater, circa 2003-2004, along the main ephemeral drainage on the property (Figure 6), it is apparent that the samples collected at borings D and E, were collected a foot or two below the water table. These samples had low TDS concentrations. While samples collected in wells that are open to a greater thickness of the fractured rock aquifer have TDS concentrations on the order of 1,000 mg/l. This suggests that overall, groundwater underlying the site is slightly brackish and the groundwater samples with low TDS concentrations are probably representative of water that has recently infiltrated from the creek bed to the water table. This interpretation is further supported by the January 2005 lab results which show that TDS concentrations are approximately 1,000 mg/l at these two locations; consistent with TDS concentrations across the site. This is probably attributable to the general rise in groundwater elevation as a result of the exceptionally wet season of late 2004/early 2005. Hence the groundwater samples collected at Borings D and E in January 2005 are likely less affected by water infiltrating from the creek.

### **Nitrate Concentrations in Groundwater**

Nitrate concentrations in groundwater ranged from 0.77 milligrams per liter (mg/l) to 24 mg/l (Table 2, Figure 5). The RWQCB's water quality objective for nitrate in this area is 10 mg/l. Of the eight locations sampled, nitrate concentrations exceeded the water quality objective in four locations; wells PV-1, PV-3, PV-4 and OW-7.

Looking in cross sectional view of the distribution of nitrate concentrations in groundwater (Figure 7), it is apparent that low concentrations of nitrate occur in the up gradient portion of the site and in shallow groundwater along the drainage at septic exploration borings D and E. This distribution suggests that groundwater flowing into the site has a low nitrate concentration. Low nitrate concentrations in groundwater samples collected at borings D and E in February 2004 are consistent with the observation of low TDS concentrations at these same locations and further support the concept that the samples represent groundwater diluted by fresh water recharging from the drainage to the water table following rainfall events. Nitrate concentrations in groundwater samples collected at borings D and E in January 2005 were 5.15 and 5.30 mg/l respectively. This change in nitrate concentration between the two sample events is again consistent with the higher groundwater elevation in January 2005; indicating that the January 2005 samples are less affected by water infiltrating from the creek.

The highest nitrate concentration in groundwater was observed at PV-3, a large diameter hand-dug

well. It is likely that nitrate concentrations are greatest at this location due to the decay of organic debris that often accumulates in large diameter wells. However, elevated nitrate concentrations at PV-1, PV-4 as well as OW-7 indicate that there is probably more than a single point source of nitrate at the site. Elevated nitrate concentrations are consistent with the former location of a 3-acre organic farm that had been operating for five years preceding its voluntary permanent termination of operations in August 2004 (Figure 5). It is expected that impact of fertilizers from the organic farm on groundwater quality will decline over time since no additional organic farm fertilizer will be added to the soil.

### NITRATE MASS BALANCE

The analysis presented herein follows the mass balance approach described in the technical report; *Review of Subsurface Wastewater Disposal Policy, San Diego Regional Water Quality Control Board* (Huntley, 1987). The mass balance equation is:

$$Q_r C_r = Q_s C_s + Q_{gw} C_{gw} + Q_l C_l - Q_p C_p \quad (2)$$

The equation is solved for Cr:

$$\underline{C_r = \frac{(Q_s C_s + Q_{gw} C_{gw} + Q_l C_l - Q_p C_p)}{Q_r}}$$

- $C_r$  = Resulting concentration of nitrate in on-site groundwater.
- $Q_r$  = Resulting discharge of groundwater ( $Q_r = Q_s + Q_{gw} + Q_l - Q_p$ ).
- $Q_s$  = Rate of groundwater recharge from septic leachate.
- $C_s$  = Concentration of nitrate in septic leachate.
- $Q_{gw}$  = Rate of groundwater flow that will dilute the leachate. This has been approximated by the cross section analysis of groundwater flow described in the report subsection entitled Groundwater Occurrence.
- $C_{gw}$  = Concentration of nitrate in up-gradient groundwater.
- $Q_l$  = Rate of landscape irrigation recharge or agricultural recharge.
- $C_l$  = Concentration of nitrate or TDS in landscape irrigation recharge.
- $Q_p$  = Rate of pumping from the site.
- $C_p$  = Concentration of nitrate or TDS in groundwater pumped from the basin or lot.

The calculation has been applied to provide an expected overall nitrate concentration at the site. The analysis does not account for the dispersion of wastewater with ambient groundwater or the shape and geometry of the wastewater plume.

In addition to assessing the current occurrence of nitrate in groundwater, to evaluate the impact septic leachate from the proposed development may have on groundwater quality, the following work and assumptions were used to better control the estimated values of several variables in the mass balance equation. Variables ( $Q_i$ ) describing water inflow and outflow are first described, followed by variables ( $C_i$ ) describing nitrate concentrations in inflowing and outflowing waters.

## **DESCRIPTION OF WATER INFLOW AND OUTFLOW RATES**

To better estimate wastewater flow rates ( $Q_s$ ) for the proposed development, a review of 2000 census data for the watershed was conducted to estimate the number of residents per dwelling unit. This estimate was further refined by conducting a survey of the nearby Rancho Jamul Estates development. It is thought that the size and price of the homes at Rancho Jamul Estates will be similar to the proposed project. Therefore, the demographics at Rancho Jamul Estates are likely to be most representative of those that will occur at Peaceful Valley Ranch. 2000 census data indicate that an average of 3.6 people share a dwelling unit within the watershed. The average number of people per home at Rancho Jamul Estates is approximately 3.0 based on information provided by a resident of the Rancho Jamul Estates Homeowners Association for 36 of the 83 homes (Appendix C). Based on Rancho Jamul Estates population data, an average domestic water demand of 70 gallons per person per day, a 10 percent domestic water consumption factor, and 50 septic systems, the annual recharge to groundwater from septic systems is 190 gallons per day per residence or 10.6 acre-feet per year for the proposed development. The average domestic water demand of 70 gallons per person per day is based on the California Department of Water Resources Bulletin (DWR) 166-4 estimates indoor residential water use (DWR, 1994).

The rate of groundwater flow into the site ( $Q_{gw}$ ) is based on the cross sectional analysis developed in this report. For the purposes of estimating average nitrate concentrations resulting from septic effluent recharge, the lower groundwater flow rate estimate of 250 acre-feet per year is used. The flow rate estimate accounts for the variability in the permeability of moderately fractured igneous rock by utilizing a transmissivity value that is less than half of the value measured from 56-hour constant discharge test at well PV-4. The analysis does not account for groundwater flow below a depth of 136 feet at well PV-4, and does not account for flow in the alluvial sediments or residuum. The analysis also does not account for direct rainfall recharge on the site or additional recharge from landscape irrigation that will occur following development.

Though groundwater recharge from landscape irrigation,  $Q_i$ , is anticipated, the concentration of nitrate  $C_i$  is difficult to estimate. Nitrate concentration in irrigation water that recharges the water table will depend upon the landscape practices of 48 individual homeowners and the manager of the equestrian polo field. In some cases, irrigation water recharging the water table will dilute the concentration of nitrate in groundwater and in other cases it may increase it.

Based on discussions with DEH, it is assumed that irrigation practices are neutral with respect to

nitrate impacts on groundwater. For the purposes of the nitrate mass balance calculation,  $Q_l$ , is assumed to be zero.

It is the intent of the project to use groundwater and Otay Water District water to irrigate the equestrian polo field. An information review and discussions with DPLU Hydrogeologist, Murray Wunderly, have resulted in a conceptual agreement to limit groundwater production to the amount of recharge generated by the proposed project from septic field recharge and irrigation recharge. The estimated rate of development related recharge and hence, the rate of groundwater production is 22.6 acre-feet per year. Final production limitations will be determined upon DPLU's review of the Peaceful Valley Ranch's groundwater resource report.

Groundwater production will remove nitrate from the fractured rock aquifer. However, unless the production well is optimally located to remove nitrate at concentrations greater than the average nitrate concentration that is calculated from the mass balance analysis, groundwater production will not decrease the average nitrate concentration in groundwater. The on-site production well, PV-4 is located at the down gradient boundary of the site and is central to the east and west boundaries of the property. Additionally, the well is 136 feet deep and therefore will be extracting groundwater from the upper portion of the fractured rock aquifer, close to the nitrate sources. Based on this information, the production well may be in a favorable location to produce groundwater with above average nitrate concentration.

However, in pursuit of a conservative estimate of the impact of nitrate loading on groundwater, it is assumed that no groundwater production will occur. Hence  $Q_p$  is assigned a value of zero.

## **DESCRIPTION OF NITRATE CONCENTRATION**

The concentration of nitrate in septic leachate ( $C_s$ ) is assumed to be 35 mg/l. This the median of the commonly accepted range of nitrate concentration of 30 to 40 mg/l (Huntley, 1987).

The concentration of nitrate in groundwater flowing into the site ( $C_{gw}$ ) was based on the highest detectable nitrate concentration observed at well PV-2 and septic exploration boring J, 0.96 mg/l. These sample locations are located on the upgradient and northern end of the site.

## **RESULTANT AVERAGE NITRATE CONCENTRATION IN GROUNDWATER**

Applying the values defined above to the mass balance equation and leaving the variable names in the equation for clarification:

$$C_r = \frac{[(10.6 * 35)(Q_s C_s) + (250 * 0.96)(Q_{gw} C_{gw}) + (0.0 * 0.0)(Q_l C_l) - (0.0 * 0.0)(Q_p C_p)]}{[(10.6 + 250 + 0.0 - 0.0)(Q_r)]} \text{ mg/l * a-f/yr}$$

$$C_r = \frac{618 \text{ mg/l * a-f/yr}}{260.8 \text{ a-f/yr}}$$

$$C_r = 2.3 \text{ mg/l nitrate, reported as nitrogen}$$

The resultant average nitrate concentration ( $C_r$ ) of 2.3 mg/l is less than the RWQCB's water quality objective for the area of 10 mg/l.

## SUMMARY AND CONCLUSION

Nitrate concentrations measured in groundwater flowing into the site are less than 1 mg/l, well below the 10 mg/l water quality standard. Nitrate concentrations in groundwater further down gradient at the site approach and exceed the 10 mg/l standard. This is most likely attributable to fertilizer applications at the organic farm formerly located at the site which terminated a five-year operation in August 2004.

An evaluation of nitrate loading in groundwater from the proposed septic leach fields indicates that the project is not expected to create ongoing nitrate concentrations in excess of the water quality standard. This conclusion is based on the following assumptions:

- 1     Elevated nitrate concentrations observed at some site locations will return to background concentrations as the nitrate source, organic farm fertilizer, is leached from the soil.
- 2     Groundwater inflow to the site is sufficient to dilute nitrate originating from septic leach fields.
- 3     Irrigation recharge is neutral with respect to nitrate mass balance.
- 4     The estimated average nitrate concentration in groundwater is conservative in that the analysis does not take into account the likely reduction in nitrate mass from groundwater extraction.
- 5     The estimated nitrate concentration is also conservative in that it does not account for dilution from groundwater recharge from direct rainfall at the site.
- 6     Finally, the estimated nitrate concentration is also conservative in that it does not account for dilution from groundwater recharge and mixing from dispersion that will occur on the 600 acres of open space land directly down gradient of the site.

## REFERENCES

California Department of Water Resources (DWR), Bulletin 166-4, Urban Water Use in California, August 1994, Tables 2-1 and 2-9.

California Division of Mines and Geology, 1962, Geologic Map of California, San Diego-El Centro Sheet, Scale 1:250,000.

California Irrigation Management Information System (CIMIS), 1999, Reference Evapotranspiration Map, Scale 1: 1,805,000. [www.cimis.water.ca.gov/cimis/images/etomap.jpg](http://www.cimis.water.ca.gov/cimis/images/etomap.jpg).

EarthTech, 2003. Evaluation of Wells at the Proposed Peaceful Valley Development, Jamul, San Diego County. Project No . 69254, December 8, 2003.

Environmental Simulations, Inc., 2003. Aquifer<sup>Win32</sup>-Modeling, Version 2.

Freeze, Allan and Cherry, John, 1979; Groundwater; Prentice Hall, Englewood Cliffs, New Jersey.

Golden Software, Inc., 1999. Surfer, Surface Mapping System, Version 7.04.

Huntley, David, 1987. Technical Report, Review of Subsurface Wastewater Disposal Policy, San Diego Regional Water Quality Control Board. September 30, 1987.

Vinje and Middleton Engineering, Inc., 2003. Preliminary Geotechnical Investigation, Proposed 51-Lot Subdivision, Peaceful Valley Ranch Road, Jamul, California. Job #03-423-P. Prepared for Peaceful Valley Ranch. November 3, 2003.

**TABLES**

**TABLE 1**  
**WATER WELL AND GROUNDWATER ELEVATION INFORMATION**

Well Identification	Function	Depth (feet)	Casing Stickup (feet)	Depth to Water <sup>1</sup> 9/16/03	Depth to Water <sup>1</sup> 6/21/04	Depth to Water <sup>1</sup> 2/27/04	Depth to Water <sup>1</sup> 9/24/04	Depth to Water <sup>1</sup> 11/11/04	Depth to Water <sup>1</sup> 1/27/05	Depth to Water <sup>1</sup> 4/6/05	Depth to Water <sup>1</sup> 2/21/05	Depth to Water <sup>1</sup> 6/21/04 <sup>2</sup>	Groundwater Elevation Nov 2004 <sup>2</sup>	Groundwater Elevation 1/27/05 <sup>2</sup>	Groundwater Elevation 2/21/05 <sup>2</sup>	Groundwater Elevation 1/27/05 <sup>2</sup>	Groundwater Elevation 9/24/04 <sup>2</sup>	Groundwater Elevation 6/21/04 <sup>2</sup>	Groundwater Elevation 2/27/04 <sup>2</sup>	Groundwater Elevation 4/6/05 <sup>2</sup>
PV-1	Active Residential Well	565	2.8		18.25	25.61	nm <sup>3</sup>	24.10	12.35	pumping	10.88	826.55	819.19	nm <sup>3</sup>	820.70	832.01	pumping	833.48		
PV-2	Inactive Supply Well	331	4.0	17.30	13.64	16.26	nm <sup>3</sup>	11.40	4.32		3.84	3.99	857.66	855.04	nm <sup>3</sup>	859.90	866.98	867.46	867.61	
PV-3	Inactive Hand Dug Well	48	0.0	nm <sup>3</sup>	18.70	25.91	nm <sup>3</sup>	23.20	12.88		10.91	10.04	825.66	818.45	nm <sup>3</sup>	821.16	831.92	833.89	834.76	
PV-4	Recently Active Farm Well	136	2.0	nm <sup>3</sup>	no access	no access	29.00	27.00	17.22		14.66	13.15	no access	808.15	810.15	819.93	822.49	824.00		
OW-1	Observation Well	39	0	nm <sup>3</sup>	not built	dry	nm <sup>3</sup>	dry	34.76		35.22	30.28	not built	< 879.71	nm <sup>3</sup>	< 879.71	884.15	883.69	888.63	
OW-2	Observation Well	30	0	nm <sup>3</sup>	not built	dry	nm <sup>3</sup>	dry	dry		dry	dry	not built	< 870.38	nm <sup>3</sup>	< 870.38	< 870.38	< 870.38	< 870.38	
OW-3	Observation Well	30	0	nm <sup>3</sup>	not built	dry	nm <sup>3</sup>	dry	dry		dry	dry	not built	< 849.77	nm <sup>3</sup>	< 849.77	< 849.77	< 849.77	< 849.77	
OW-4	Observation Well	29	0	nm <sup>3</sup>	not built	dry	nm <sup>3</sup>	dry	dry		dry	dry	not built	< 923.64	nm <sup>3</sup>	< 923.64	< 923.64	< 923.64	< 923.64	
OW-5	Observation Well	27	0	nm <sup>3</sup>	not built	dry	nm <sup>3</sup>	dry	dry		dry	dry	not built	< 906.18	nm <sup>3</sup>	< 906.18	< 906.18	< 906.18	< 906.18	
OW-6	Observation Well	29	0	nm <sup>3</sup>	not built	dry	nm <sup>3</sup>	dry	dry		dry	dry	not built	< 828.55	nm <sup>3</sup>	< 828.55	< 828.55	< 828.55	< 828.55	
OW-7	Observation Well	42	0	nm <sup>3</sup>	not built	39.00	nm <sup>3</sup>	38.56	37.62		34.05	30.61	not built	819.42	nm <sup>3</sup>	819.86	820.80	824.37	827.81	
OW-8	Observation Well	58	0	nm <sup>3</sup>	not built	not built	nm <sup>3</sup>	33.25	24.35		20.92	18.52	not built	not built	nm <sup>3</sup>	827.90	836.80	840.23	842.63	
OW-9	Observation Well	82	0	nm <sup>3</sup>	not built	not built	nm <sup>3</sup>	46.19	33.78		30.56	25.10	not built	not built	nm <sup>3</sup>	831.55	843.96	847.18	852.64	
Stoddard Well	Residential Irrigation Well	> 300	not measured	nm <sup>3</sup>	no access	no access	nm <sup>3</sup>	no access	no access		no access	no access	no access	no access	nm <sup>3</sup>	no access	no access	no access	no access	
Hendrix Hand Dug Well	Residential Irrigation Well	29	3.65	nm <sup>3</sup>	19.80	21.01	nm <sup>3</sup>	18.66	9.38		8.74	9.07	850.40	849.19	nm <sup>3</sup>	851.54	860.82	861.46	861.13	
Parker Well	Inactive	1,400	0.7	nm <sup>3</sup>	65.70	64.10	nm <sup>3</sup>	63.09	57.50		55.75	50.98	942.96	944.56	nm <sup>3</sup>	945.57	951.16	952.91	957.68	
J	Leach Field Exploration	21.79	1.2	nm <sup>3</sup>	18.35	21.00	nm <sup>3</sup>	17.89	10.52		10.15	10.29	858.48	855.83	nm <sup>3</sup>	858.94	866.31	866.68	866.54	
C	Leach Field Exploration	21.44	1.7	nm <sup>3</sup>	19.57	Dry	nm <sup>3</sup>	Dry	12.00		10.52	10.04	826.83	> 823.50	nm <sup>3</sup>	< 823.50	834.40	835.88	836.36	
D	Leach Field Exploration	22.8	1.4	nm <sup>3</sup>	18.82	Dry	nm <sup>3</sup>	23.40	11.75		11.04	10.58	835.87	> 831.00	nm <sup>3</sup>	831.29	842.94	843.65	844.11	
E	Leach Field Exploration	19.86	1.9	nm <sup>3</sup>	18.58	Dry	nm <sup>3</sup>	18.88	10.99		9.07	8.94	819.13	> 816.41	nm <sup>3</sup>	818.83	826.72	828.64	828.77	

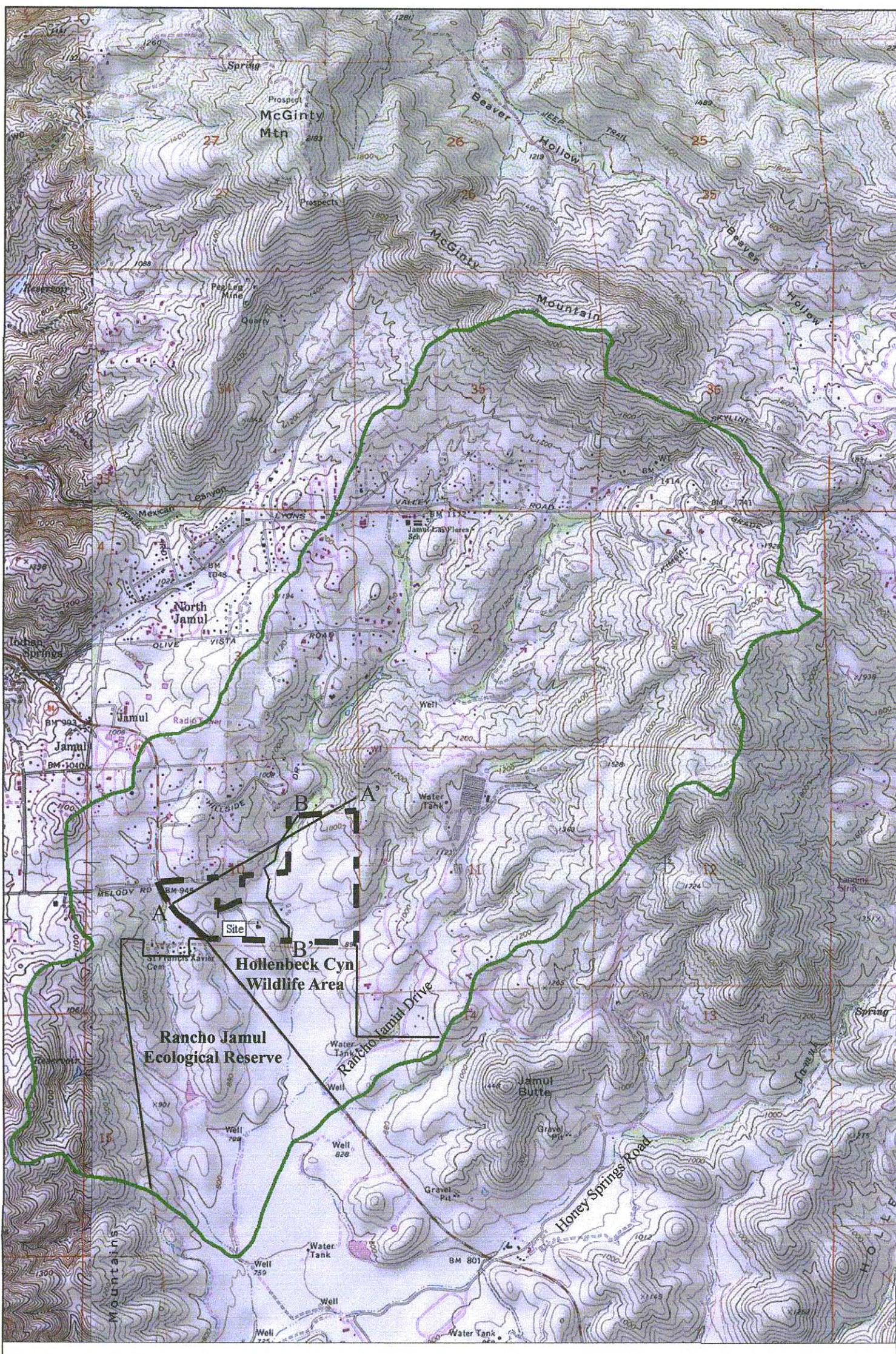
*Notes: 1) Measured in feet from top of casing. 2) feet mean sea level 3) nm = not measured*

TABLE 2  
SUMMARY OF NITRATE AND TOTAL DISSOLVED SOLIDS IN GROUNDWATER

Well ID	Samples Collected During Aquifer Test					
	September-October 2003		February 2004		January 2005	
	Nitrate as N (mg/l)	TDS (mg/l)	Nitrate as N (mg/l)	TDS (mg/l)	Nitrate as N (mg/l)	TDS (mg/l)
D	-	-	1.72	373	-	5.15
E	-	-	3.92	367	-	5.30
J	-	-	-	-	0.57	918
PV-1	12	1,300	-	-	1,520	1,270
PV-2	0.96	1,300	-	-	1,120	933
PV-3	-	-	-	-	< 0.05	749
PV-4	-	-	-	-	13.2	4.93
OW-7	-	-	-	-	13.0	736
					11.00	1,130
					10.060	1,060
					9.75	10.50
					9.47	1,080
					912	546
					14.7	-

**Wiedlin & Associates, Inc.**  
*Applications in Groundwater Science*

**FIGURES**



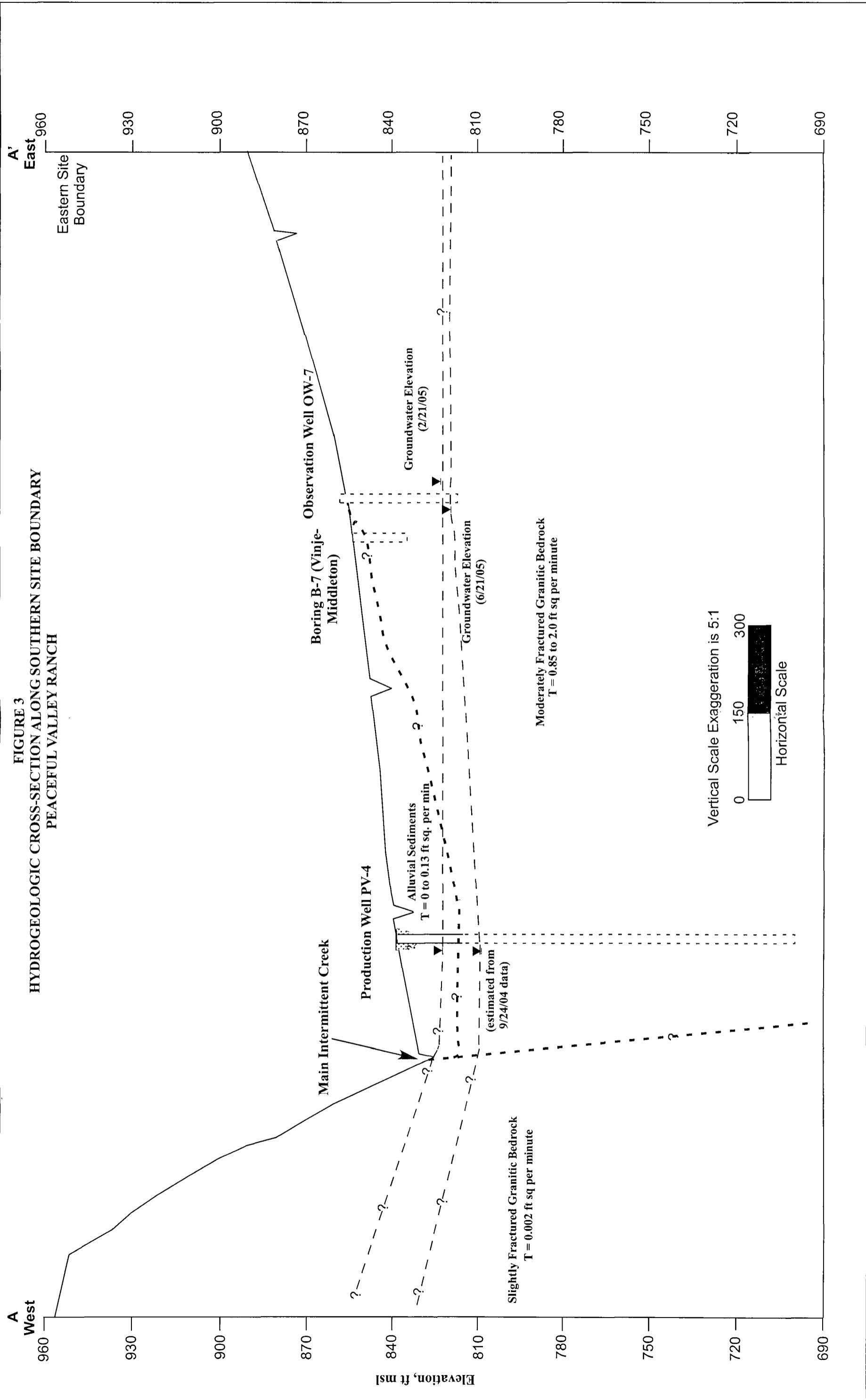
TN \* MN  
13°

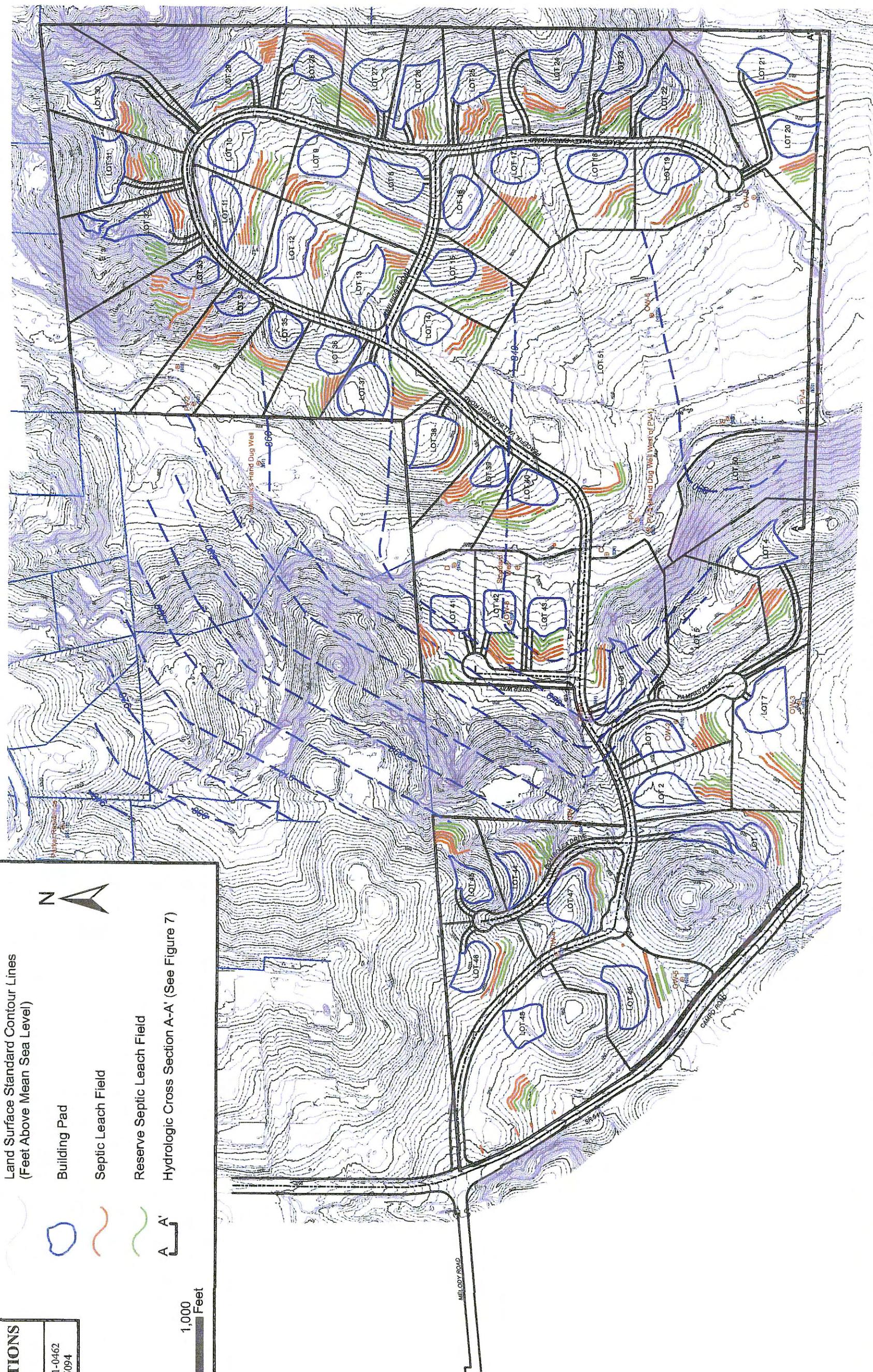
0 1000 FEET 0 500 1000 METERS

Printed from TOPO! ©2001 National Geographic Holdings ([www.topo.com](http://www.topo.com))



**FIGURE 3**  
**HYDROGEOLOGIC CROSS-SECTION ALONG SOUTHERN SITE BOUNDARY**  
**PEACEFUL VALLEY RANCH**





Wiedlin and Associates, Inc.

Applications in Groundwater Science

## PEACEFUL VALLEY RANCH

FIGURE 4  
GROUNDWATER ELEVATIONS  
JANUARY 27, 2005

O. Box 910462 San Diego, CA 92191-0462  
Ph. (858) 259-6732 Fax (858) 259-6094

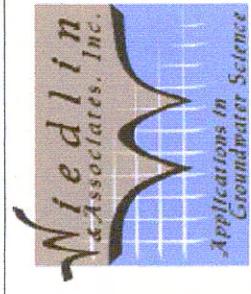
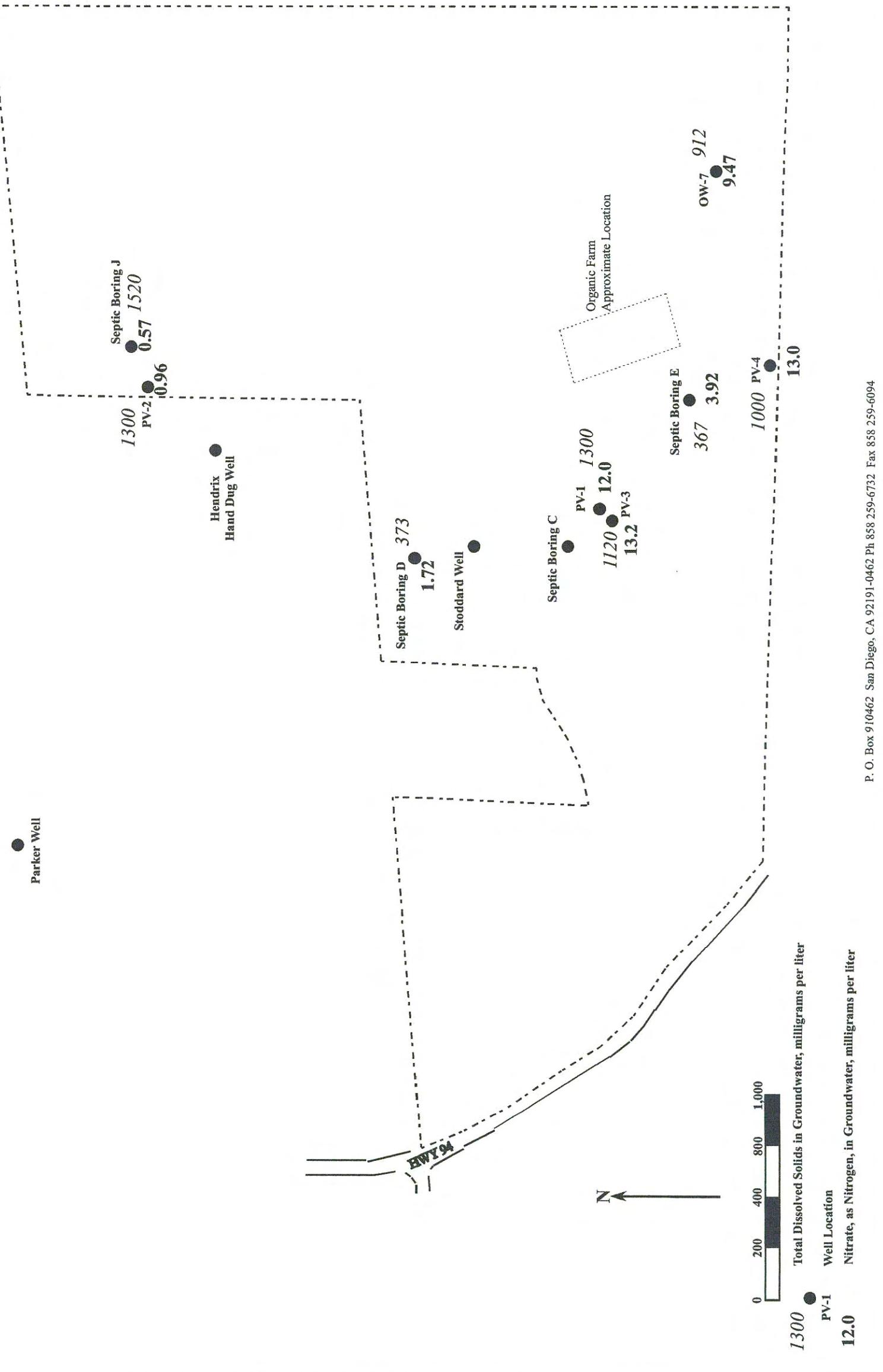
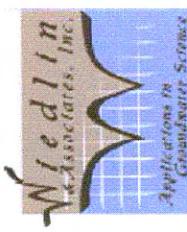


FIGURE 5 NITRATE AND TOTAL DISSOLVED SOLIDS, 2003-2004



P. O. Box 910462 San Diego, CA 92191-0462 Ph 858 259-6732 Fax 858 259-6094



**FIGURE 6**  
**HYDROGEOLOGIC CROSS SECTION B-B'**  
 Total Dissolved Solids (TDS) Concentrations, milligrams per liter

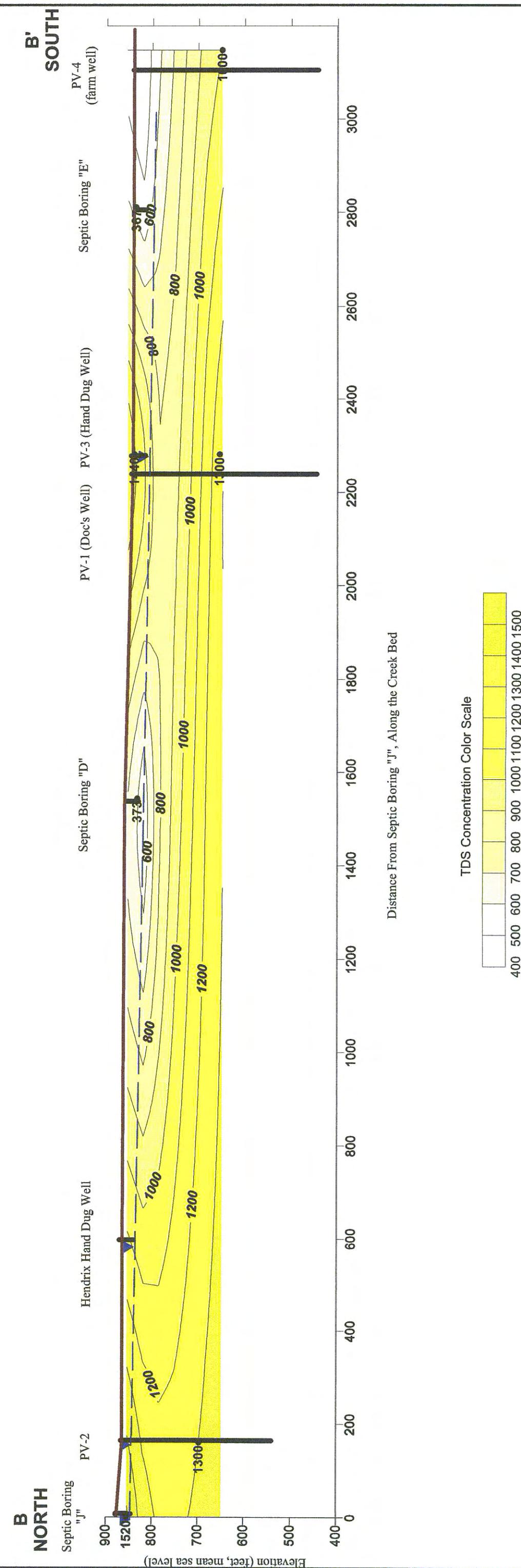
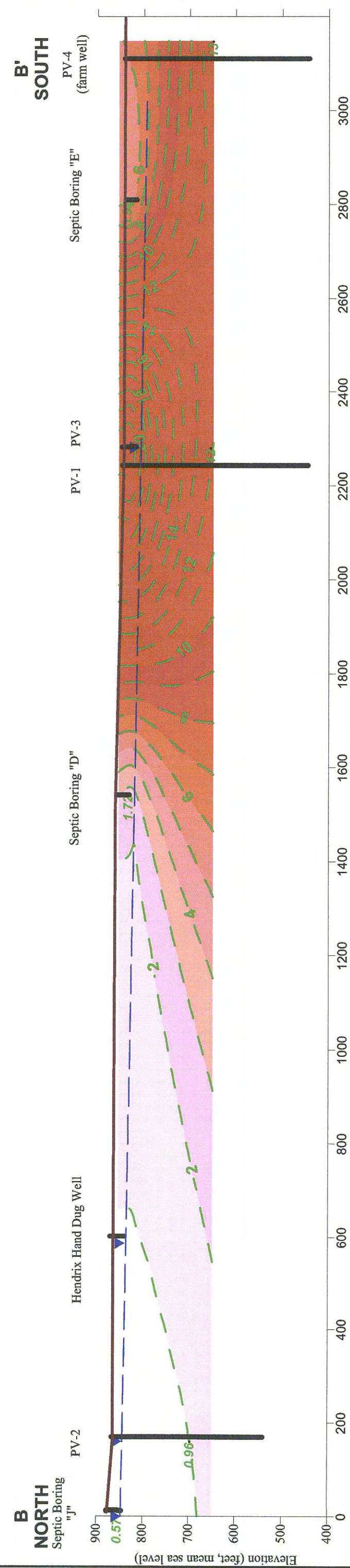




FIGURE 7  
HYDROGEOLOGIC CROSS SECTION B-B'  
Nitrate Concentrations as Nitrogen, milligrams per liter



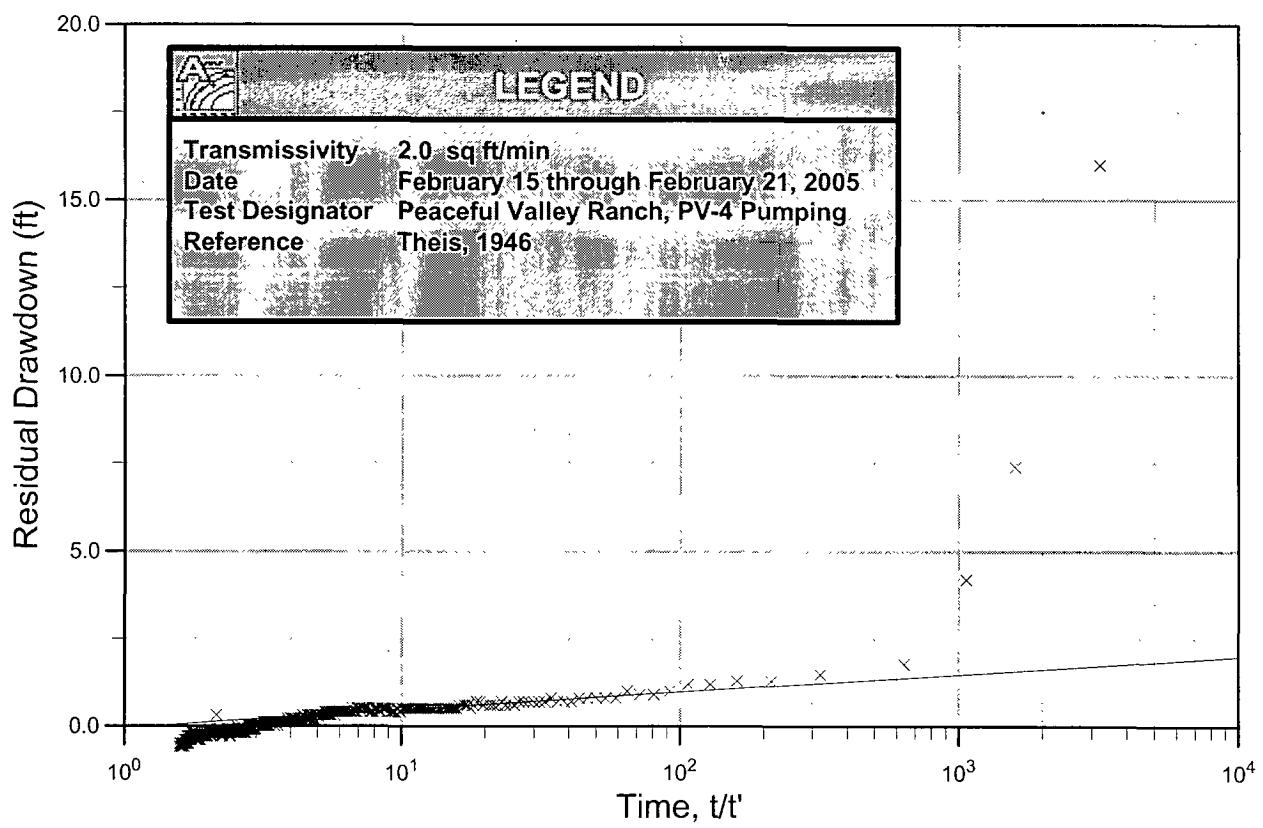
## **APPENDICES**

**Wiedlin & Associates, Inc.**  
*Applications in Groundwater Science*

**APPENDIX A  
AQUIFER TEST DATA AND WELL LOGS**

**Appendix A-1**  
**PV-4 Constant Discharge Aquifer Test**

PV-4 Theis Recovery Analysis, Q = 41 GPM



**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
138	92.1	2/15/2005 9:59	0	0.0		
139	91.6	2/15/2005 10:00	0.33	0.5		
140	83.1	2/15/2005 10:00	0.67	9.0		
141	78.4	2/15/2005 10:00	1.00	13.7		
142	75.1	2/15/2005 10:01	1.33	17.0		
143	72.6	2/15/2005 10:01	1.67	19.5		
144	70.5	2/15/2005 10:01	2.00	21.6		
145	69.1	2/15/2005 10:02	2.33	23.0		
146	68.1	2/15/2005 10:02	2.67	24.0		
147	67.5	2/15/2005 10:02	3.00	24.6		
148	67.1	2/15/2005 10:03	3.33	25.0		
149	66.9	2/15/2005 10:03	3.67	25.2		
150	66.8	2/15/2005 10:03	4.00	25.3		
151	66.7	2/15/2005 10:04	4.33	25.4		
152	66.6	2/15/2005 10:04	4.67	25.5		
153	66.6	2/15/2005 10:04	5.00	25.5		
154	66.6	2/15/2005 10:05	5.33	25.5		
155	66.6	2/15/2005 10:05	5.67	25.5		
156	66.6	2/15/2005 10:05	6.00	25.5		
157	66.4	2/15/2005 10:06	6.33	25.7		
158	66.3	2/15/2005 10:06	6.67	25.8		
159	66.2	2/15/2005 10:06	7.00	25.9		
160	66.2	2/15/2005 10:07	7.33	25.9		
161	66.1	2/15/2005 10:07	7.67	26.0		
162	65.9	2/15/2005 10:07	8.00	26.2		
163	65.6	2/15/2005 10:08	8.33	26.5		
164	65.3	2/15/2005 10:08	8.67	26.8		
165	65.3	2/15/2005 10:08	9.00	26.7		
166	65.1	2/15/2005 10:09	9.33	26.9		
167	65.1	2/15/2005 10:09	9.67	26.9		
168	65.0	2/15/2005 10:09	10.00	27.0		
169	64.9	2/15/2005 10:10	10.33	27.1		
170	64.8	2/15/2005 10:10	10.67	27.2		
171	64.9	2/15/2005 10:10	11.00	27.1		
172	64.8	2/15/2005 10:11	11.33	27.2		
173	64.8	2/15/2005 10:11	11.67	27.2		
174	64.8	2/15/2005 10:11	12.00	27.2		
175	64.7	2/15/2005 10:12	12.33	27.3		
176	64.6	2/15/2005 10:12	12.67	27.4		
177	64.6	2/15/2005 10:12	13.00	27.4		
178	64.6	2/15/2005 10:13	13.33	27.4		
179	64.8	2/15/2005 10:13	13.67	27.2		
180	64.6	2/15/2005 10:13	14.00	27.4		
181	64.6	2/15/2005 10:14	14.33	27.4		
182	64.6	2/15/2005 10:14	14.67	27.4		
183	64.6	2/15/2005 10:14	15.00	27.4		
184	64.6	2/15/2005 10:15	15.33	27.4		
185	64.6	2/15/2005 10:15	15.67	27.4		
186	64.6	2/15/2005 10:15	16.00	27.4		
187	64.6	2/15/2005 10:16	16.33	27.4		
188	64.6	2/15/2005 10:16	16.67	27.4		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
189	64.6	2/15/2005 10:16	17.00	27.4		
190	64.6	2/15/2005 10:17	17.33	27.4		
191	64.6	2/15/2005 10:17	17.67	27.4		
192	64.7	2/15/2005 10:17	18.00	27.3		
193	64.6	2/15/2005 10:18	18.33	27.4		
194	64.6	2/15/2005 10:18	18.67	27.4		
195	64.7	2/15/2005 10:18	19.00	27.3		
196	64.7	2/15/2005 10:19	19.33	27.3		
197	64.6	2/15/2005 10:19	19.67	27.4		
198	64.6	2/15/2005 10:19	20.00	27.4		
199	64.6	2/15/2005 10:20	20.33	27.4		
200	64.7	2/15/2005 10:20	20.67	27.3		
201	64.8	2/15/2005 10:20	21.00	27.2		
202	65.0	2/15/2005 10:21	21.33	27.0		
203	65.2	2/15/2005 10:21	21.67	26.8		
204	65.2	2/15/2005 10:21	22.00	26.8		
205	64.9	2/15/2005 10:22	22.33	27.1		
206	64.8	2/15/2005 10:22	22.67	27.2		
207	64.6	2/15/2005 10:22	23.00	27.4		
208	64.5	2/15/2005 10:23	23.33	27.5		
209	64.4	2/15/2005 10:23	23.67	27.6		
210	64.4	2/15/2005 10:23	24.00	27.6		
211	64.4	2/15/2005 10:24	24.33	27.6		
212	64.3	2/15/2005 10:24	24.67	27.7		
213	64.2	2/15/2005 10:24	25.00	27.8		
214	64.2	2/15/2005 10:25	25.33	27.8		
215	64.1	2/15/2005 10:25	25.67	27.9		
216	64.1	2/15/2005 10:25	26.00	27.9		
217	64.1	2/15/2005 10:26	26.33	27.9		
218	64.1	2/15/2005 10:26	26.67	27.9		
219	64.1	2/15/2005 10:26	27.00	27.9		
220	64.1	2/15/2005 10:27	27.33	27.9		
221	64.1	2/15/2005 10:27	27.67	27.9		
222	64.1	2/15/2005 10:27	28.00	27.9		
223	64.2	2/15/2005 10:28	28.33	27.8		
224	64.2	2/15/2005 10:28	28.67	27.8		
225	64.2	2/15/2005 10:28	29.00	27.8		
226	64.2	2/15/2005 10:29	29.33	27.8		
227	64.1	2/15/2005 10:29	29.67	27.9		
228	64.1	2/15/2005 10:29	30.00	27.9		
229	64.1	2/15/2005 10:30	30.33	27.9		
230	64.1	2/15/2005 10:30	30.67	27.9		
231	64.1	2/15/2005 10:30	31.00	27.9		
232	64.1	2/15/2005 10:31	31.33	27.9		
233	64.1	2/15/2005 10:31	31.67	27.9		
234	64.1	2/15/2005 10:31	32.00	27.9		
235	64.1	2/15/2005 10:32	32.33	27.9		
236	64.0	2/15/2005 10:32	32.67	28.0		
237	64.0	2/15/2005 10:32	33.00	28.0		
238	64.0	2/15/2005 10:33	33.33	28.0		
239	64.0	2/15/2005 10:33	33.67	28.0		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
240	64.0	2/15/2005 10:33	34.00	28.0		
241	63.9	2/15/2005 10:34	34.33	28.1		
242	64.0	2/15/2005 10:34	34.67	28.0		
243	64.0	2/15/2005 10:34	35.00	28.0		
244	64.0	2/15/2005 10:35	35.33	28.0		
245	64.0	2/15/2005 10:35	35.67	28.0		
246	64.1	2/15/2005 10:35	36.00	27.9		
247	64.1	2/15/2005 10:36	36.33	27.9		
248	64.1	2/15/2005 10:36	36.67	27.9		
249	64.1	2/15/2005 10:36	37.00	27.9		
250	64.1	2/15/2005 10:37	37.33	27.9		
251	64.1	2/15/2005 10:37	37.67	27.9		
252	64.1	2/15/2005 10:37	38.00	27.9		
253	64.1	2/15/2005 10:38	38.33	27.9		
254	64.1	2/15/2005 10:38	38.67	27.9		
255	64.1	2/15/2005 10:38	39.00	27.9		
256	64.1	2/15/2005 10:39	39.33	27.9		
257	64.1	2/15/2005 10:39	39.67	27.9		
258	64.1	2/15/2005 10:39	40.00	27.9		
259	64.1	2/15/2005 10:40	40.33	27.9		
260	64.1	2/15/2005 10:40	40.67	27.9		
261	64.1	2/15/2005 10:40	41.00	27.9		
262	64.1	2/15/2005 10:41	41.33	27.9		
263	64.1	2/15/2005 10:41	41.67	27.9		
264	64.1	2/15/2005 10:41	42.00	27.9		
265	64.1	2/15/2005 10:42	42.33	27.9		
266	64.1	2/15/2005 10:42	42.67	27.9		
267	64.1	2/15/2005 10:42	43.00	27.9		
268	64.1	2/15/2005 10:43	43.33	27.9		
269	64.1	2/15/2005 10:43	43.67	27.9		
270	64.0	2/15/2005 10:43	44.00	28.0		
271	64.1	2/15/2005 10:44	44.33	27.9		
272	64.1	2/15/2005 10:44	44.67	27.9		
273	64.1	2/15/2005 10:44	45.00	27.9		
274	64.1	2/15/2005 10:45	45.33	27.9		
275	64.1	2/15/2005 10:45	45.67	27.9		
276	64.1	2/15/2005 10:45	46.00	27.9		
277	64.1	2/15/2005 10:46	46.33	27.9		
278	64.1	2/15/2005 10:46	46.67	27.9		
279	64.1	2/15/2005 10:46	47.00	27.9		
280	64.1	2/15/2005 10:47	47.33	27.9		
281	64.1	2/15/2005 10:47	47.67	27.9		
282	64.1	2/15/2005 10:47	48.00	27.9		
283	64.1	2/15/2005 10:48	48.33	27.9		
284	64.1	2/15/2005 10:48	48.67	27.9		
285	64.1	2/15/2005 10:48	49.00	27.9		
286	64.1	2/15/2005 10:49	49.33	27.9		
287	64.2	2/15/2005 10:49	49.67	27.8		
288	64.1	2/15/2005 10:49	50.00	27.9		
289	64.1	2/15/2005 10:50	50.33	27.9		
290	64.1	2/15/2005 10:50	50.67	27.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
291	64.1	2/15/2005 10:50	51.00	27.9		
292	64.1	2/15/2005 10:51	51.33	27.9		
293	64.1	2/15/2005 10:51	51.67	27.9		
294	64.1	2/15/2005 10:51	52.00	27.9		
295	64.2	2/15/2005 10:52	52.33	27.8		
296	64.1	2/15/2005 10:52	52.67	27.9		
297	63.9	2/15/2005 10:52	53.00	28.1		
298	63.8	2/15/2005 10:53	53.33	28.2		
299	63.7	2/15/2005 10:53	53.67	28.3		
300	63.6	2/15/2005 10:53	54.00	28.4		
301	63.5	2/15/2005 10:54	54.33	28.5		
302	63.5	2/15/2005 10:54	54.67	28.5		
303	63.5	2/15/2005 10:54	55.00	28.5		
304	63.4	2/15/2005 10:55	55.33	28.6		
305	63.4	2/15/2005 10:55	55.67	28.6		
306	63.4	2/15/2005 10:55	56.00	28.6		
307	63.4	2/15/2005 10:56	56.33	28.6		
308	63.4	2/15/2005 10:56	56.67	28.6		
309	63.3	2/15/2005 10:56	57.00	28.7		
310	63.4	2/15/2005 10:57	57.33	28.6		
311	63.4	2/15/2005 10:57	57.67	28.6		
312	63.4	2/15/2005 10:57	58.00	28.6		
313	63.3	2/15/2005 10:58	58.33	28.7		
314	63.3	2/15/2005 10:58	58.67	28.7		
315	63.3	2/15/2005 10:58	59.00	28.7		
316	63.3	2/15/2005 10:59	59.33	28.7		
317	63.3	2/15/2005 10:59	59.67	28.7		
318	63.4	2/15/2005 10:59	60.00	28.6		
319	63.3	2/15/2005 11:00	60.33	28.7		
320	63.3	2/15/2005 11:00	60.67	28.7		
321	63.3	2/15/2005 11:00	61.00	28.7		
322	63.3	2/15/2005 11:01	61.33	28.7		
323	63.3	2/15/2005 11:01	61.67	28.7		
324	63.4	2/15/2005 11:01	62.00	28.6		
325	63.3	2/15/2005 11:02	62.33	28.7		
326	63.3	2/15/2005 11:02	62.67	28.7		
327	63.3	2/15/2005 11:02	63.00	28.7		
328	63.3	2/15/2005 11:03	63.33	28.7		
329	63.3	2/15/2005 11:03	63.67	28.7		
330	63.4	2/15/2005 11:03	64.00	28.6		
331	63.4	2/15/2005 11:04	64.33	28.6		
332	63.4	2/15/2005 11:04	64.67	28.6		
333	63.4	2/15/2005 11:04	65.00	28.6		
334	63.4	2/15/2005 11:05	65.33	28.6		
335	63.4	2/15/2005 11:05	65.67	28.6		
336	63.3	2/15/2005 11:05	66.00	28.7		
337	63.3	2/15/2005 11:06	66.33	28.7		
338	63.3	2/15/2005 11:06	66.67	28.7		
339	63.3	2/15/2005 11:06	67.00	28.7		
340	63.2	2/15/2005 11:07	67.33	28.8		
341	63.3	2/15/2005 11:07	67.67	28.7		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
342	63.3	2/15/2005 11:07	68.00	28.7		
343	63.2	2/15/2005 11:08	68.33	28.8		
344	63.3	2/15/2005 11:08	68.67	28.7		
345	63.2	2/15/2005 11:08	69.00	28.8		
346	63.3	2/15/2005 11:09	69.33	28.7		
347	63.2	2/15/2005 11:09	69.67	28.8		
348	63.3	2/15/2005 11:09	70.00	28.7		
349	63.2	2/15/2005 11:10	70.33	28.8		
350	63.2	2/15/2005 11:10	70.67	28.8		
351	63.2	2/15/2005 11:10	71.00	28.8		
352	63.3	2/15/2005 11:11	71.33	28.7		
353	63.3	2/15/2005 11:11	71.67	28.7		
354	63.3	2/15/2005 11:11	72.00	28.7		
355	63.3	2/15/2005 11:12	72.33	28.7		
356	63.3	2/15/2005 11:12	72.67	28.7		
357	63.2	2/15/2005 11:12	73.00	28.8		
358	63.2	2/15/2005 11:13	73.33	28.8		
359	63.2	2/15/2005 11:13	73.67	28.8		
360	63.2	2/15/2005 11:13	74.00	28.8		
361	63.2	2/15/2005 11:14	74.33	28.8		
362	63.2	2/15/2005 11:14	74.67	28.8		
363	63.3	2/15/2005 11:14	75.00	28.7		
364	63.2	2/15/2005 11:15	75.33	28.8		
365	63.2	2/15/2005 11:15	75.67	28.8		
366	63.1	2/15/2005 11:15	76.00	28.9		
367	63.2	2/15/2005 11:16	76.33	28.8		
368	63.2	2/15/2005 11:16	76.67	28.8		
369	63.2	2/15/2005 11:16	77.00	28.8		
370	63.2	2/15/2005 11:17	77.33	28.8		
371	63.2	2/15/2005 11:17	77.67	28.8		
372	63.2	2/15/2005 11:17	78.00	28.8		
373	63.2	2/15/2005 11:18	78.33	28.8		
374	63.3	2/15/2005 11:18	78.67	28.7		
375	63.2	2/15/2005 11:18	79.00	28.8		
376	63.2	2/15/2005 11:19	79.33	28.8		
377	63.2	2/15/2005 11:19	79.67	28.8		
378	63.2	2/15/2005 11:19	80.00	28.8		
379	63.2	2/15/2005 11:20	80.33	28.8		
380	63.2	2/15/2005 11:20	80.67	28.8		
381	63.2	2/15/2005 11:20	81.00	28.8		
382	63.2	2/15/2005 11:21	81.33	28.8		
383	63.1	2/15/2005 11:21	81.67	28.9		
384	63.2	2/15/2005 11:21	82.00	28.8		
385	63.2	2/15/2005 11:22	82.33	28.8		
386	63.2	2/15/2005 11:22	82.67	28.8		
387	63.2	2/15/2005 11:22	83.00	28.8		
388	62.9	2/15/2005 11:23	83.33	29.1		
389	62.7	2/15/2005 11:23	83.67	29.3		
390	62.6	2/15/2005 11:23	84.00	29.4		
391	62.5	2/15/2005 11:24	85.00	29.5		
392	62.1	2/15/2005 11:25	86.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
393	62.0	2/15/2005 11:26	87.00	30.0		
394	61.9	2/15/2005 11:27	88.00	30.1		
395	62.4	2/15/2005 11:28	89.00	29.6		
396	62.7	2/15/2005 11:29	90.00	29.3		
397	62.9	2/15/2005 11:30	91.00	29.1		
398	63.0	2/15/2005 11:31	92.00	29.0		
399	63.1	2/15/2005 11:32	93.00	28.9		
400	63.2	2/15/2005 11:33	94.00	28.8		
401	63.2	2/15/2005 11:34	95.00	28.8		
402	63.3	2/15/2005 11:35	96.00	28.7		
403	63.2	2/15/2005 11:36	97.00	28.8		
404	63.2	2/15/2005 11:37	98.00	28.8		
405	63.3	2/15/2005 11:38	99.00	28.7		
406	63.3	2/15/2005 11:39	100.00	28.7		
407	63.3	2/15/2005 11:40	101.00	28.7		
408	63.4	2/15/2005 11:41	102.00	28.6		
409	63.3	2/15/2005 11:42	103.00	28.7		
410	63.3	2/15/2005 11:43	104.00	28.7		
411	63.4	2/15/2005 11:44	105.00	28.6		
412	63.3	2/15/2005 11:45	106.00	28.7		
413	63.3	2/15/2005 11:46	107.00	28.7		
414	63.7	2/15/2005 11:47	108.00	28.3		
415	63.9	2/15/2005 11:48	109.00	28.1		
416	64.0	2/15/2005 11:49	110.00	28.0		
417	63.1	2/15/2005 11:50	111.00	28.9		
418	62.7	2/15/2005 11:51	112.00	29.3		
419	62.5	2/15/2005 11:52	113.00	29.5		
420	62.5	2/15/2005 11:53	114.00	29.6		
421	62.3	2/15/2005 11:54	115.00	29.8		
422	62.4	2/15/2005 11:55	116.00	29.7		
423	62.4	2/15/2005 11:56	117.00	29.7		
424	62.3	2/15/2005 11:57	118.00	29.8		
425	62.2	2/15/2005 11:58	119.00	29.9		
426	62.2	2/15/2005 11:59	120.00	29.9		
427	62.3	2/15/2005 12:00	121.00	29.8		
428	62.3	2/15/2005 12:01	122.00	29.8		
429	62.3	2/15/2005 12:02	123.00	29.8		
430	62.3	2/15/2005 12:03	124.00	29.8		
431	62.3	2/15/2005 12:04	125.00	29.8		
432	62.3	2/15/2005 12:05	126.00	29.8		
433	62.4	2/15/2005 12:06	127.00	29.7		
434	62.3	2/15/2005 12:07	128.00	29.8		
435	62.3	2/15/2005 12:08	129.00	29.8		
436	62.3	2/15/2005 12:09	130.00	29.8		
437	62.2	2/15/2005 12:10	131.00	29.9		
438	62.2	2/15/2005 12:11	132.00	29.9		
439	62.2	2/15/2005 12:12	133.00	29.9		
440	62.2	2/15/2005 12:13	134.00	29.9		
441	62.2	2/15/2005 12:14	135.00	29.9		
442	62.2	2/15/2005 12:15	136.00	29.9		
443	62.1	2/15/2005 12:16	137.00	30.0		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
444	62.1	2/15/2005 12:17	138.00	30.0		
445	62.1	2/15/2005 12:18	139.00	30.0		
446	62.1	2/15/2005 12:19	140.00	30.0		
447	62.3	2/15/2005 12:20	141.00	29.8		
448	62.1	2/15/2005 12:21	142.00	30.0		
449	62.1	2/15/2005 12:22	143.00	30.0		
450	62.1	2/15/2005 12:23	144.00	30.0		
451	62.1	2/15/2005 12:24	145.00	30.0		
452	62.2	2/15/2005 12:25	146.00	29.9		
453	62.3	2/15/2005 12:26	147.00	29.8		
454	62.3	2/15/2005 12:27	148.00	29.8		
455	62.3	2/15/2005 12:28	149.00	29.8		
456	62.3	2/15/2005 12:29	150.00	29.8		
457	62.3	2/15/2005 12:30	151.00	29.8		
458	62.3	2/15/2005 12:31	152.00	29.8		
459	62.2	2/15/2005 12:32	153.00	29.9		
460	62.2	2/15/2005 12:33	154.00	29.9		
461	62.1	2/15/2005 12:34	155.00	30.0		
462	62.1	2/15/2005 12:35	156.00	30.0		
463	62.1	2/15/2005 12:36	157.00	30.0		
464	62.1	2/15/2005 12:37	158.00	30.0		
465	62.0	2/15/2005 12:38	159.00	30.1		
466	62.1	2/15/2005 12:39	160.00	30.0		
467	62.1	2/15/2005 12:40	161.00	30.0		
468	62.1	2/15/2005 12:41	162.00	30.0		
469	62.1	2/15/2005 12:42	163.00	30.0		
470	62.1	2/15/2005 12:43	164.00	30.0		
471	62.1	2/15/2005 12:44	165.00	30.0		
472	62.1	2/15/2005 12:45	166.00	30.0		
473	62.2	2/15/2005 12:46	167.00	29.9		
474	62.2	2/15/2005 12:47	168.00	29.9		
475	62.1	2/15/2005 12:48	169.00	30.0		
476	62.1	2/15/2005 12:49	170.00	30.0		
477	62.1	2/15/2005 12:50	171.00	30.0		
478	62.2	2/15/2005 12:51	172.00	29.9		
479	62.1	2/15/2005 12:52	173.00	30.0		
480	62.0	2/15/2005 12:53	174.00	30.1		
481	62.0	2/15/2005 12:54	175.00	30.1		
482	62.0	2/15/2005 12:55	176.00	30.1		
483	62.1	2/15/2005 12:56	177.00	30.0		
484	62.0	2/15/2005 12:57	178.00	30.1		
485	62.0	2/15/2005 12:58	179.00	30.1		
486	62.0	2/15/2005 12:59	180.00	30.1		
487	62.0	2/15/2005 13:00	181.00	30.1		
488	62.1	2/15/2005 13:01	182.00	30.0		
489	62.0	2/15/2005 13:02	183.00	30.1		
490	62.0	2/15/2005 13:03	184.00	30.1		
491	62.0	2/15/2005 13:04	185.00	30.1		
492	62.0	2/15/2005 13:05	186.00	30.1		
493	62.1	2/15/2005 13:06	187.00	30.0		
494	62.1	2/15/2005 13:07	188.00	30.0		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
495	62.1	2/15/2005 13:08	189.00	30.0		
496	62.0	2/15/2005 13:09	190.00	30.1		
497	62.1	2/15/2005 13:10	191.00	30.0		
498	62.0	2/15/2005 13:11	192.00	30.1		
499	62.0	2/15/2005 13:12	193.00	30.1		
500	62.0	2/15/2005 13:13	194.00	30.1		
501	62.0	2/15/2005 13:14	195.00	30.1		
502	62.0	2/15/2005 13:15	196.00	30.1		
503	62.1	2/15/2005 13:16	197.00	30.0		
504	62.0	2/15/2005 13:17	198.00	30.1		
505	62.0	2/15/2005 13:18	199.00	30.1		
506	62.0	2/15/2005 13:19	200.00	30.1		
507	62.1	2/15/2005 13:20	201.00	30.0		
508	62.0	2/15/2005 13:21	202.00	30.1		
509	62.1	2/15/2005 13:22	203.00	30.0		
510	62.0	2/15/2005 13:23	204.00	30.1		
511	62.0	2/15/2005 13:24	205.00	30.1		
512	62.1	2/15/2005 13:25	206.00	30.0		
513	62.1	2/15/2005 13:26	207.00	30.0		
514	62.1	2/15/2005 13:27	208.00	30.0		
515	62.0	2/15/2005 13:28	209.00	30.1		
516	62.0	2/15/2005 13:29	210.00	30.1		
517	62.0	2/15/2005 13:30	211.00	30.1		
518	62.1	2/15/2005 13:31	212.00	30.0		
519	62.0	2/15/2005 13:32	213.00	30.1		
520	62.0	2/15/2005 13:33	214.00	30.1		
521	62.0	2/15/2005 13:34	215.00	30.1		
522	62.0	2/15/2005 13:35	216.00	30.1		
523	62.0	2/15/2005 13:36	217.00	30.1		
524	62.1	2/15/2005 13:37	218.00	30.0		
525	61.9	2/15/2005 13:38	219.00	30.2		
526	62.0	2/15/2005 13:39	220.00	30.1		
527	62.0	2/15/2005 13:40	221.00	30.1		
528	62.0	2/15/2005 13:41	222.00	30.1		
529	62.0	2/15/2005 13:42	223.00	30.1		
530	62.0	2/15/2005 13:43	224.00	30.1		
531	62.0	2/15/2005 13:44	225.00	30.1		
532	62.0	2/15/2005 13:45	226.00	30.1		
533	62.0	2/15/2005 13:46	227.00	30.1		
534	62.1	2/15/2005 13:47	228.00	30.0		
535	62.0	2/15/2005 13:48	229.00	30.1		
536	62.0	2/15/2005 13:49	230.00	30.1		
537	62.0	2/15/2005 13:50	231.00	30.1		
538	62.0	2/15/2005 13:51	232.00	30.1		
539	62.0	2/15/2005 13:52	233.00	30.1		
540	62.0	2/15/2005 13:53	234.00	30.0		
541	62.1	2/15/2005 13:54	235.00	29.9		
542	62.0	2/15/2005 13:55	236.00	30.0		
543	62.1	2/15/2005 13:56	237.00	29.9		
544	62.1	2/15/2005 13:57	238.00	29.9		
545	62.1	2/15/2005 13:58	239.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
546	62.0	2/15/2005 13:59	240.00	30.0		
547	62.0	2/15/2005 14:00	241.00	30.0		
548	62.0	2/15/2005 14:01	242.00	30.0		
549	62.0	2/15/2005 14:02	243.00	30.0		
550	62.1	2/15/2005 14:03	244.00	29.9		
551	62.0	2/15/2005 14:04	245.00	30.0		
552	62.1	2/15/2005 14:05	246.00	29.9		
553	62.0	2/15/2005 14:06	247.00	30.0		
554	62.1	2/15/2005 14:07	248.00	29.9		
555	62.0	2/15/2005 14:08	249.00	30.1		
556	62.1	2/15/2005 14:09	250.00	30.0		
557	62.1	2/15/2005 14:10	251.00	30.0		
558	62.0	2/15/2005 14:11	252.00	30.1		
559	62.0	2/15/2005 14:12	253.00	30.1		
560	62.0	2/15/2005 14:13	254.00	30.1		
561	62.0	2/15/2005 14:14	255.00	30.1		
562	61.9	2/15/2005 14:15	256.00	30.2		
563	62.0	2/15/2005 14:16	257.00	30.1		
564	61.9	2/15/2005 14:17	258.00	30.2		
565	62.0	2/15/2005 14:18	259.00	30.1		
566	62.0	2/15/2005 14:19	260.00	30.1		
567	62.0	2/15/2005 14:20	261.00	30.1		
568	62.0	2/15/2005 14:21	262.00	30.1		
569	62.0	2/15/2005 14:22	263.00	30.1		
570	61.9	2/15/2005 14:23	264.00	30.1		
571	61.8	2/15/2005 14:24	265.00	30.2		
572	62.0	2/15/2005 14:25	266.00	30.0		
573	61.9	2/15/2005 14:26	267.00	30.1		
574	62.0	2/15/2005 14:27	268.00	30.0		
575	62.0	2/15/2005 14:28	269.00	30.0		
576	62.0	2/15/2005 14:29	270.00	30.0		
577	62.0	2/15/2005 14:30	271.00	30.0		
578	62.0	2/15/2005 14:31	272.00	30.0		
579	61.9	2/15/2005 14:32	273.00	30.1		
580	62.0	2/15/2005 14:33	274.00	30.0		
581	61.9	2/15/2005 14:34	275.00	30.1		
582	62.0	2/15/2005 14:35	276.00	30.0		
583	62.0	2/15/2005 14:36	277.00	30.0		
584	62.0	2/15/2005 14:37	278.00	30.0		
585	62.0	2/15/2005 14:38	279.00	30.1		
586	62.1	2/15/2005 14:39	280.00	30.0		
587	62.1	2/15/2005 14:40	281.00	30.0		
588	62.0	2/15/2005 14:41	282.00	30.1		
589	62.0	2/15/2005 14:42	283.00	30.1		
590	62.1	2/15/2005 14:43	284.00	30.0		
591	62.0	2/15/2005 14:44	285.00	30.1		
592	62.0	2/15/2005 14:45	286.00	30.1		
593	62.1	2/15/2005 14:46	287.00	30.0		
594	62.1	2/15/2005 14:47	288.00	30.0		
595	62.1	2/15/2005 14:48	289.00	30.0		
596	62.0	2/15/2005 14:49	290.00	30.1		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
597	62.0	2/15/2005 14:50	291.00	30.1		
598	62.0	2/15/2005 14:51	292.00	30.1		
599	62.0	2/15/2005 14:52	293.00	30.1		
600	62.0	2/15/2005 14:53	294.00	30.1		
601	62.0	2/15/2005 14:54	295.00	30.1		
602	62.0	2/15/2005 14:55	296.00	30.1		
603	62.0	2/15/2005 14:56	297.00	30.1		
604	62.0	2/15/2005 14:57	298.00	30.1		
605	62.0	2/15/2005 14:58	299.00	30.1		
606	62.0	2/15/2005 14:59	300.00	30.1		
607	62.0	2/15/2005 15:00	301.00	30.1		
608	62.0	2/15/2005 15:01	302.00	30.1		
609	62.0	2/15/2005 15:02	303.00	30.1		
610	62.0	2/15/2005 15:03	304.00	30.1		
611	62.0	2/15/2005 15:04	305.00	30.1		
612	62.0	2/15/2005 15:05	306.00	30.1		
613	62.0	2/15/2005 15:06	307.00	30.1		
614	62.0	2/15/2005 15:07	308.00	30.1		
615	62.1	2/15/2005 15:08	309.00	29.9		
616	62.1	2/15/2005 15:09	310.00	29.9		
617	62.1	2/15/2005 15:10	311.00	29.9		
618	62.0	2/15/2005 15:11	312.00	30.0		
619	62.0	2/15/2005 15:12	313.00	30.0		
620	62.1	2/15/2005 15:13	314.00	29.9		
621	62.1	2/15/2005 15:14	315.00	29.9		
622	62.0	2/15/2005 15:15	316.00	30.0		
623	62.1	2/15/2005 15:16	317.00	29.9		
624	62.1	2/15/2005 15:17	318.00	29.9		
625	62.0	2/15/2005 15:18	319.00	30.0		
626	62.0	2/15/2005 15:19	320.00	30.0		
627	62.1	2/15/2005 15:20	321.00	29.9		
628	62.1	2/15/2005 15:21	322.00	29.9		
629	62.0	2/15/2005 15:22	323.00	30.0		
630	62.0	2/15/2005 15:23	324.00	30.0		
631	62.0	2/15/2005 15:24	325.00	30.0		
632	62.1	2/15/2005 15:25	326.00	29.9		
633	62.1	2/15/2005 15:26	327.00	29.9		
634	62.1	2/15/2005 15:27	328.00	29.9		
635	62.0	2/15/2005 15:28	329.00	30.0		
636	62.1	2/15/2005 15:29	330.00	29.9		
637	62.1	2/15/2005 15:30	331.00	29.9		
638	62.1	2/15/2005 15:31	332.00	29.9		
639	62.0	2/15/2005 15:32	333.00	30.0		
640	62.0	2/15/2005 15:33	334.00	30.0		
641	62.0	2/15/2005 15:34	335.00	30.0		
642	62.0	2/15/2005 15:35	336.00	30.0		
643	62.0	2/15/2005 15:36	337.00	30.0		
644	62.0	2/15/2005 15:37	338.00	30.0		
645	62.0	2/15/2005 15:38	339.00	30.1		
646	62.0	2/15/2005 15:39	340.00	30.1		
647	62.1	2/15/2005 15:40	341.00	30.0		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
648	62.1	2/15/2005 15:41	342.00	30.0		
649	62.0	2/15/2005 15:42	343.00	30.1		
650	62.1	2/15/2005 15:43	344.00	30.0		
651	62.1	2/15/2005 15:44	345.00	30.0		
652	62.5	2/15/2005 15:45	346.00	29.6		
653	62.7	2/15/2005 15:46	347.00	29.4		
654	62.8	2/15/2005 15:47	348.00	29.3		
655	63.0	2/15/2005 15:48	349.00	29.1		
656	63.1	2/15/2005 15:49	350.00	29.0		
657	63.1	2/15/2005 15:50	351.00	29.0		
658	63.1	2/15/2005 15:51	352.00	29.0		
659	63.2	2/15/2005 15:52	353.00	28.9		
660	63.3	2/15/2005 15:53	354.00	28.7		
661	63.4	2/15/2005 15:54	355.00	28.6		
662	63.4	2/15/2005 15:55	356.00	28.6		
663	63.5	2/15/2005 15:56	357.00	28.5		
664	63.6	2/15/2005 15:57	358.00	28.4		
665	63.5	2/15/2005 15:58	359.00	28.5		
666	63.5	2/15/2005 15:59	360.00	28.5		
667	63.5	2/15/2005 16:00	361.00	28.5		
668	63.5	2/15/2005 16:01	362.00	28.5		
669	63.6	2/15/2005 16:02	363.00	28.4		
670	63.6	2/15/2005 16:03	364.00	28.4		
671	63.5	2/15/2005 16:04	365.00	28.5		
672	63.5	2/15/2005 16:05	366.00	28.5		
673	63.5	2/15/2005 16:06	367.00	28.5		
674	63.4	2/15/2005 16:07	368.00	28.6		
675	63.2	2/15/2005 16:08	369.00	28.8		
676	63.2	2/15/2005 16:09	370.00	28.8		
677	63.1	2/15/2005 16:10	371.00	28.9		
678	63.0	2/15/2005 16:11	372.00	29.0		
679	63.0	2/15/2005 16:12	373.00	29.0		
680	63.1	2/15/2005 16:13	374.00	28.9		
681	63.1	2/15/2005 16:14	375.00	28.9		
682	63.2	2/15/2005 16:15	376.00	28.8		
683	63.4	2/15/2005 16:16	377.00	28.6		
684	63.3	2/15/2005 16:17	378.00	28.7		
685	63.2	2/15/2005 16:18	379.00	28.8		
686	63.2	2/15/2005 16:19	380.00	28.8		
687	63.2	2/15/2005 16:20	381.00	28.8		
688	63.2	2/15/2005 16:21	382.00	28.8		
689	63.2	2/15/2005 16:22	383.00	28.8		
690	63.2	2/15/2005 16:23	384.00	28.9		
691	63.2	2/15/2005 16:24	385.00	28.9		
692	63.1	2/15/2005 16:25	386.00	29.0		
693	63.2	2/15/2005 16:26	387.00	28.9		
694	63.2	2/15/2005 16:27	388.00	28.9		
695	63.2	2/15/2005 16:28	389.00	28.9		
696	63.2	2/15/2005 16:29	390.00	28.9		
697	63.2	2/15/2005 16:30	391.00	28.9		
698	63.2	2/15/2005 16:31	392.00	28.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
699	63.1	2/15/2005 16:32	393.00	29.0		
700	63.1	2/15/2005 16:33	394.00	29.0		
701	63.2	2/15/2005 16:34	395.00	28.9		
702	63.2	2/15/2005 16:35	396.00	28.9		
703	63.3	2/15/2005 16:36	397.00	28.8		
704	63.2	2/15/2005 16:37	398.00	28.9		
705	63.2	2/15/2005 16:38	399.00	28.8		
706	63.2	2/15/2005 16:39	400.00	28.8		
707	63.2	2/15/2005 16:40	401.00	28.8		
708	63.1	2/15/2005 16:41	402.00	28.9		
709	62.5	2/15/2005 16:42	403.00	29.5		
710	62.1	2/15/2005 16:43	404.00	29.9		
711	61.8	2/15/2005 16:44	405.00	30.2		
712	61.6	2/15/2005 16:45	406.00	30.4		
713	61.6	2/15/2005 16:46	407.00	30.4		
714	61.5	2/15/2005 16:47	408.00	30.5		
715	61.5	2/15/2005 16:48	409.00	30.5		
716	61.4	2/15/2005 16:49	410.00	30.6		
717	61.4	2/15/2005 16:50	411.00	30.6		
718	61.4	2/15/2005 16:51	412.00	30.6		
719	61.4	2/15/2005 16:52	413.00	30.6		
720	61.5	2/15/2005 16:53	414.00	30.6		
721	61.4	2/15/2005 16:54	415.00	30.7		
722	61.5	2/15/2005 16:55	416.00	30.6		
723	61.4	2/15/2005 16:56	417.00	30.7		
724	61.4	2/15/2005 16:57	418.00	30.7		
725	61.5	2/15/2005 16:58	419.00	30.6		
726	61.5	2/15/2005 16:59	420.00	30.6		
727	61.5	2/15/2005 17:00	421.00	30.6		
728	61.5	2/15/2005 17:01	422.00	30.6		
729	61.4	2/15/2005 17:02	423.00	30.7		
730	61.4	2/15/2005 17:03	424.00	30.7		
731	61.5	2/15/2005 17:04	425.00	30.6		
732	61.4	2/15/2005 17:05	426.00	30.7		
733	61.4	2/15/2005 17:06	427.00	30.7		
734	61.4	2/15/2005 17:07	428.00	30.7		
735	61.5	2/15/2005 17:08	429.00	30.6		
736	61.4	2/15/2005 17:09	430.00	30.7		
737	61.4	2/15/2005 17:10	431.00	30.7		
738	61.5	2/15/2005 17:11	432.00	30.6		
739	61.4	2/15/2005 17:12	433.00	30.7		
740	61.5	2/15/2005 17:13	434.00	30.6		
741	61.4	2/15/2005 17:14	435.00	30.7		
742	61.5	2/15/2005 17:15	436.00	30.6		
743	61.5	2/15/2005 17:16	437.00	30.6		
744	61.4	2/15/2005 17:17	438.00	30.7		
745	61.5	2/15/2005 17:18	439.00	30.6		
746	61.5	2/15/2005 17:19	440.00	30.6		
747	61.5	2/15/2005 17:20	441.00	30.6		
748	61.5	2/15/2005 17:21	442.00	30.6		
749	61.5	2/15/2005 17:22	443.00	30.6		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
750	61.5	2/15/2005 17:23	444.00	30.6		
751	61.5	2/15/2005 17:24	445.00	30.6		
752	61.5	2/15/2005 17:25	446.00	30.6		
753	61.5	2/15/2005 17:26	447.00	30.6		
754	61.5	2/15/2005 17:27	448.00	30.6		
755	61.5	2/15/2005 17:28	449.00	30.6		
756	61.5	2/15/2005 17:29	450.00	30.6		
757	61.5	2/15/2005 17:30	451.00	30.6		
758	61.4	2/15/2005 17:31	452.00	30.7		
759	61.4	2/15/2005 17:32	453.00	30.7		
760	61.4	2/15/2005 17:33	454.00	30.7		
761	61.4	2/15/2005 17:34	455.00	30.7		
762	61.3	2/15/2005 17:35	456.00	30.8		
763	61.4	2/15/2005 17:36	457.00	30.7		
764	61.3	2/15/2005 17:37	458.00	30.8		
765	61.3	2/15/2005 17:38	459.00	30.8		
766	61.3	2/15/2005 17:39	460.00	30.8		
767	61.2	2/15/2005 17:40	461.00	30.9		
768	61.2	2/15/2005 17:41	462.00	30.9		
769	61.2	2/15/2005 17:42	463.00	30.9		
770	61.2	2/15/2005 17:43	464.00	30.9		
771	61.3	2/15/2005 17:44	465.00	30.8		
772	61.3	2/15/2005 17:45	466.00	30.8		
773	61.2	2/15/2005 17:46	467.00	30.9		
774	61.2	2/15/2005 17:47	468.00	30.9		
775	61.3	2/15/2005 17:48	469.00	30.8		
776	61.2	2/15/2005 17:49	470.00	30.9		
777	61.2	2/15/2005 17:50	471.00	30.9		
778	61.2	2/15/2005 17:51	472.00	30.9		
779	61.2	2/15/2005 17:52	473.00	30.9		
780	61.3	2/15/2005 17:53	474.00	30.8		
781	61.3	2/15/2005 17:54	475.00	30.8		
782	61.3	2/15/2005 17:55	476.00	30.8		
783	61.2	2/15/2005 17:56	477.00	30.9		
784	61.3	2/15/2005 17:57	478.00	30.8		
785	61.3	2/15/2005 17:58	479.00	30.8		
786	61.3	2/15/2005 17:59	480.00	30.8		
787	61.3	2/15/2005 18:00	481.00	30.8		
788	61.3	2/15/2005 18:01	482.00	30.8		
789	61.4	2/15/2005 18:02	483.00	30.7		
790	61.3	2/15/2005 18:03	484.00	30.8		
791	61.4	2/15/2005 18:04	485.00	30.7		
792	61.4	2/15/2005 18:05	486.00	30.7		
793	61.3	2/15/2005 18:06	487.00	30.8		
794	61.3	2/15/2005 18:07	488.00	30.8		
795	61.3	2/15/2005 18:08	489.00	30.8		
796	61.3	2/15/2005 18:09	490.00	30.8		
797	61.3	2/15/2005 18:10	491.00	30.8		
798	61.4	2/15/2005 18:11	492.00	30.7		
799	61.3	2/15/2005 18:12	493.00	30.8		
800	61.4	2/15/2005 18:13	494.00	30.7		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
801	61.3	2/15/2005 18:14	495.00	30.8		
802	61.3	2/15/2005 18:15	496.00	30.8		
803	61.4	2/15/2005 18:16	497.00	30.7		
804	61.3	2/15/2005 18:17	498.00	30.8		
805	61.3	2/15/2005 18:18	499.00	30.8		
806	61.2	2/15/2005 18:19	500.00	30.9		
807	61.3	2/15/2005 18:20	501.00	30.8		
808	61.3	2/15/2005 18:21	502.00	30.8		
809	61.3	2/15/2005 18:22	503.00	30.8		
810	61.4	2/15/2005 18:23	504.00	30.7		
811	61.5	2/15/2005 18:24	505.00	30.6		
812	61.5	2/15/2005 18:25	506.00	30.6		
813	61.6	2/15/2005 18:26	507.00	30.5		
814	61.7	2/15/2005 18:27	508.00	30.4		
815	61.7	2/15/2005 18:28	509.00	30.4		
816	61.7	2/15/2005 18:29	510.00	30.4		
817	61.7	2/15/2005 18:30	511.00	30.4		
818	61.7	2/15/2005 18:31	512.00	30.4		
819	61.7	2/15/2005 18:32	513.00	30.4		
820	61.6	2/15/2005 18:33	514.00	30.5		
821	61.7	2/15/2005 18:34	515.00	30.4		
822	61.6	2/15/2005 18:35	516.00	30.5		
823	61.7	2/15/2005 18:36	517.00	30.4		
824	61.8	2/15/2005 18:37	518.00	30.3		
825	61.7	2/15/2005 18:38	519.00	30.4		
826	61.8	2/15/2005 18:39	520.00	30.3		
827	61.8	2/15/2005 18:40	521.00	30.3		
828	61.8	2/15/2005 18:41	522.00	30.3		
829	61.8	2/15/2005 18:42	523.00	30.3		
830	61.7	2/15/2005 18:43	524.00	30.4		
831	61.9	2/15/2005 18:44	525.00	30.2		
832	62.1	2/15/2005 18:45	526.00	30.0		
833	62.1	2/15/2005 18:46	527.00	30.0		
834	62.1	2/15/2005 18:47	528.00	30.0		
835	62.1	2/15/2005 18:48	529.00	30.0		
836	62.2	2/15/2005 18:49	530.00	29.9		
837	62.2	2/15/2005 18:50	531.00	29.9		
838	62.3	2/15/2005 18:51	532.00	29.8		
839	62.3	2/15/2005 18:52	533.00	29.8		
840	62.2	2/15/2005 18:53	534.00	29.9		
841	62.2	2/15/2005 18:54	535.00	29.9		
842	62.2	2/15/2005 18:55	536.00	29.9		
843	62.1	2/15/2005 18:56	537.00	30.0		
844	62.2	2/15/2005 18:57	538.00	29.9		
845	62.2	2/15/2005 18:58	539.00	29.9		
846	62.2	2/15/2005 18:59	540.00	29.9		
847	62.2	2/15/2005 19:00	541.00	29.9		
848	62.3	2/15/2005 19:01	542.00	29.8		
849	62.3	2/15/2005 19:02	543.00	29.8		
850	62.2	2/15/2005 19:03	544.00	29.9		
851	62.2	2/15/2005 19:04	545.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = .41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
852	62.3	2/15/2005 19:05	546.00	29.8		
853	62.3	2/15/2005 19:06	547.00	29.8		
854	62.2	2/15/2005 19:07	548.00	29.9		
855	62.2	2/15/2005 19:08	549.00	29.9		
856	62.2	2/15/2005 19:09	550.00	29.9		
857	62.3	2/15/2005 19:10	551.00	29.8		
858	62.2	2/15/2005 19:11	552.00	29.9		
859	62.3	2/15/2005 19:12	553.00	29.8		
860	62.2	2/15/2005 19:13	554.00	29.9		
861	62.2	2/15/2005 19:14	555.00	29.9		
862	62.3	2/15/2005 19:15	556.00	29.8		
863	62.3	2/15/2005 19:16	557.00	29.8		
864	62.3	2/15/2005 19:17	558.00	29.8		
865	62.3	2/15/2005 19:18	559.00	29.8		
866	62.2	2/15/2005 19:19	560.00	29.9		
867	62.2	2/15/2005 19:20	561.00	29.9		
868	62.3	2/15/2005 19:21	562.00	29.8		
869	62.3	2/15/2005 19:22	563.00	29.8		
870	62.2	2/15/2005 19:23	564.00	29.9		
871	62.2	2/15/2005 19:24	565.00	29.9		
872	62.3	2/15/2005 19:25	566.00	29.8		
873	62.3	2/15/2005 19:26	567.00	29.8		
874	62.2	2/15/2005 19:27	568.00	29.9		
875	62.2	2/15/2005 19:28	569.00	29.9		
876	62.3	2/15/2005 19:29	570.00	29.8		
877	62.3	2/15/2005 19:30	571.00	29.8		
878	62.3	2/15/2005 19:31	572.00	29.8		
879	62.3	2/15/2005 19:32	573.00	29.8		
880	62.3	2/15/2005 19:33	574.00	29.8		
881	62.3	2/15/2005 19:34	575.00	29.8		
882	62.3	2/15/2005 19:35	576.00	29.8		
883	62.3	2/15/2005 19:36	577.00	29.8		
884	62.3	2/15/2005 19:37	578.00	29.8		
885	62.3	2/15/2005 19:38	579.00	29.8		
886	62.3	2/15/2005 19:39	580.00	29.8		
887	62.2	2/15/2005 19:40	581.00	29.9		
888	62.3	2/15/2005 19:41	582.00	29.8		
889	62.3	2/15/2005 19:42	583.00	29.8		
890	62.3	2/15/2005 19:43	584.00	29.8		
891	62.3	2/15/2005 19:44	585.00	29.8		
892	62.3	2/15/2005 19:45	586.00	29.8		
893	62.2	2/15/2005 19:46	587.00	29.9		
894	62.3	2/15/2005 19:47	588.00	29.8		
895	62.3	2/15/2005 19:48	589.00	29.8		
896	62.2	2/15/2005 19:49	590.00	29.9		
897	62.2	2/15/2005 19:50	591.00	29.9		
898	62.2	2/15/2005 19:51	592.00	29.9		
899	62.2	2/15/2005 19:52	593.00	29.9		
900	62.2	2/15/2005 19:53	594.00	29.9		
901	62.2	2/15/2005 19:54	595.00	29.9		
902	62.2	2/15/2005 19:55	596.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
903	62.2	2/15/2005 19:56	597.00	29.9		
904	62.2	2/15/2005 19:57	598.00	29.9		
905	62.3	2/15/2005 19:58	599.00	29.8		
906	62.3	2/15/2005 19:59	600.00	29.8		
907	62.3	2/15/2005 20:00	601.00	29.8		
908	62.2	2/15/2005 20:01	602.00	29.9		
909	62.2	2/15/2005 20:02	603.00	29.9		
910	62.3	2/15/2005 20:03	604.00	29.8		
911	62.3	2/15/2005 20:04	605.00	29.8		
912	62.3	2/15/2005 20:05	606.00	29.8		
913	62.3	2/15/2005 20:06	607.00	29.8		
914	62.3	2/15/2005 20:07	608.00	29.8		
915	62.2	2/15/2005 20:08	609.00	29.9		
916	62.3	2/15/2005 20:09	610.00	29.8		
917	62.3	2/15/2005 20:10	611.00	29.8		
918	62.3	2/15/2005 20:11	612.00	29.8		
919	62.3	2/15/2005 20:12	613.00	29.8		
920	62.4	2/15/2005 20:13	614.00	29.7		
921	62.3	2/15/2005 20:14	615.00	29.8		
922	62.3	2/15/2005 20:15	616.00	29.8		
923	62.2	2/15/2005 20:16	617.00	29.9		
924	62.3	2/15/2005 20:17	618.00	29.8		
925	62.2	2/15/2005 20:18	619.00	29.9		
926	62.2	2/15/2005 20:19	620.00	29.9		
927	62.2	2/15/2005 20:20	621.00	29.9		
928	62.2	2/15/2005 20:21	622.00	29.9		
929	62.2	2/15/2005 20:22	623.00	29.9		
930	62.2	2/15/2005 20:23	624.00	29.9		
931	62.2	2/15/2005 20:24	625.00	29.9		
932	62.3	2/15/2005 20:25	626.00	29.8		
933	62.2	2/15/2005 20:26	627.00	29.9		
934	62.1	2/15/2005 20:27	628.00	30.0		
935	62.2	2/15/2005 20:28	629.00	29.9		
936	62.2	2/15/2005 20:29	630.00	29.9		
937	62.2	2/15/2005 20:30	631.00	29.9		
938	62.2	2/15/2005 20:31	632.00	29.9		
939	62.2	2/15/2005 20:32	633.00	29.9		
940	62.2	2/15/2005 20:33	634.00	29.9		
941	62.2	2/15/2005 20:34	635.00	29.9		
942	62.2	2/15/2005 20:35	636.00	29.9		
943	62.2	2/15/2005 20:36	637.00	29.9		
944	62.2	2/15/2005 20:37	638.00	29.9		
945	62.2	2/15/2005 20:38	639.00	29.9		
946	62.2	2/15/2005 20:39	640.00	29.9		
947	62.2	2/15/2005 20:40	641.00	29.9		
948	62.3	2/15/2005 20:41	642.00	29.8		
949	62.2	2/15/2005 20:42	643.00	29.9		
950	62.3	2/15/2005 20:43	644.00	29.8		
951	62.2	2/15/2005 20:44	645.00	29.9		
952	62.2	2/15/2005 20:45	646.00	29.9		
953	62.2	2/15/2005 20:46	647.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
954	62.2	2/15/2005 20:47	648.00	29.9		
955	62.2	2/15/2005 20:48	649.00	29.9		
956	62.3	2/15/2005 20:49	650.00	29.8		
957	62.3	2/15/2005 20:50	651.00	29.8		
958	62.2	2/15/2005 20:51	652.00	29.9		
959	62.2	2/15/2005 20:52	653.00	29.9		
960	62.2	2/15/2005 20:53	654.00	29.9		
961	62.3	2/15/2005 20:54	655.00	29.8		
962	62.2	2/15/2005 20:55	656.00	29.9		
963	62.2	2/15/2005 20:56	657.00	29.9		
964	62.2	2/15/2005 20:57	658.00	29.9		
965	62.2	2/15/2005 20:58	659.00	29.9		
966	62.2	2/15/2005 20:59	660.00	29.9		
967	62.3	2/15/2005 21:00	661.00	29.8		
968	62.3	2/15/2005 21:01	662.00	29.8		
969	62.2	2/15/2005 21:02	663.00	29.9		
970	62.3	2/15/2005 21:03	664.00	29.8		
971	62.3	2/15/2005 21:04	665.00	29.8		
972	62.3	2/15/2005 21:05	666.00	29.8		
973	62.2	2/15/2005 21:06	667.00	29.9		
974	62.3	2/15/2005 21:07	668.00	29.8		
975	62.3	2/15/2005 21:08	669.00	29.8		
976	62.4	2/15/2005 21:09	670.00	29.7		
977	62.3	2/15/2005 21:10	671.00	29.8		
978	62.2	2/15/2005 21:11	672.00	29.9		
979	62.3	2/15/2005 21:12	673.00	29.8		
980	62.2	2/15/2005 21:13	674.00	29.9		
981	62.3	2/15/2005 21:14	675.00	29.8		
982	62.3	2/15/2005 21:15	676.00	29.8		
983	62.3	2/15/2005 21:16	677.00	29.8		
984	62.3	2/15/2005 21:17	678.00	29.8		
985	62.3	2/15/2005 21:18	679.00	29.8		
986	62.2	2/15/2005 21:19	680.00	29.9		
987	62.2	2/15/2005 21:20	681.00	29.9		
988	62.2	2/15/2005 21:21	682.00	29.9		
989	62.2	2/15/2005 21:22	683.00	29.9		
990	62.2	2/15/2005 21:23	684.00	29.9		
991	62.3	2/15/2005 21:24	685.00	29.8		
992	62.3	2/15/2005 21:25	686.00	29.8		
993	62.3	2/15/2005 21:26	687.00	29.8		
994	62.2	2/15/2005 21:27	688.00	29.9		
995	62.3	2/15/2005 21:28	689.00	29.8		
996	62.3	2/15/2005 21:29	690.00	29.8		
997	62.2	2/15/2005 21:30	691.00	29.9		
998	62.2	2/15/2005 21:31	692.00	29.9		
999	62.2	2/15/2005 21:32	693.00	29.9		
1000	62.3	2/15/2005 21:33	694.00	29.8		
1001	62.3	2/15/2005 21:34	695.00	29.8		
1002	62.2	2/15/2005 21:35	696.00	29.9		
1003	62.2	2/15/2005 21:36	697.00	29.9		
1004	62.3	2/15/2005 21:37	698.00	29.8		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1005	62.3	2/15/2005 21:38	699.00	29.8		
1006	62.3	2/15/2005 21:39	700.00	29.8		
1007	62.3	2/15/2005 21:40	701.00	29.8		
1008	62.2	2/15/2005 21:41	702.00	29.9		
1009	62.2	2/15/2005 21:42	703.00	29.9		
1010	62.3	2/15/2005 21:43	704.00	29.8		
1011	62.3	2/15/2005 21:44	705.00	29.8		
1012	62.2	2/15/2005 21:45	706.00	29.9		
1013	62.2	2/15/2005 21:46	707.00	29.9		
1014	62.2	2/15/2005 21:47	708.00	29.9		
1015	62.2	2/15/2005 21:48	709.00	29.9		
1016	62.2	2/15/2005 21:49	710.00	29.9		
1017	62.2	2/15/2005 21:50	711.00	29.9		
1018	62.2	2/15/2005 21:51	712.00	29.9		
1019	62.2	2/15/2005 21:52	713.00	29.9		
1020	62.2	2/15/2005 21:53	714.00	29.9		
1021	62.2	2/15/2005 21:54	715.00	29.9		
1022	62.1	2/15/2005 21:55	716.00	30.0		
1023	62.2	2/15/2005 21:56	717.00	29.9		
1024	62.2	2/15/2005 21:57	718.00	29.9		
1025	62.2	2/15/2005 21:58	719.00	29.9		
1026	62.2	2/15/2005 21:59	720.00	29.9		
1027	62.3	2/15/2005 22:00	721.00	29.8		
1028	62.2	2/15/2005 22:01	722.00	29.9		
1029	62.2	2/15/2005 22:02	723.00	29.9		
1030	62.2	2/15/2005 22:03	724.00	29.9		
1031	62.2	2/15/2005 22:04	725.00	29.9		
1032	62.2	2/15/2005 22:05	726.00	29.9		
1033	62.2	2/15/2005 22:06	727.00	29.9		
1034	62.3	2/15/2005 22:07	728.00	29.8		
1035	62.2	2/15/2005 22:08	729.00	29.9		
1036	62.2	2/15/2005 22:09	730.00	29.9		
1037	62.3	2/15/2005 22:10	731.00	29.8		
1038	62.2	2/15/2005 22:11	732.00	29.9		
1039	62.3	2/15/2005 22:12	733.00	29.8		
1040	62.2	2/15/2005 22:13	734.00	29.9		
1041	62.3	2/15/2005 22:14	735.00	29.8		
1042	62.3	2/15/2005 22:15	736.00	29.8		
1043	62.3	2/15/2005 22:16	737.00	29.8		
1044	62.3	2/15/2005 22:17	738.00	29.8		
1045	62.3	2/15/2005 22:18	739.00	29.8		
1046	62.3	2/15/2005 22:19	740.00	29.8		
1047	62.2	2/15/2005 22:20	741.00	29.9		
1048	62.2	2/15/2005 22:21	742.00	29.9		
1049	62.2	2/15/2005 22:22	743.00	29.9		
1050	62.2	2/15/2005 22:23	744.00	29.9		
1051	62.2	2/15/2005 22:24	745.00	29.9		
1052	62.2	2/15/2005 22:25	746.00	29.9		
1053	62.2	2/15/2005 22:26	747.00	29.9		
1054	62.2	2/15/2005 22:27	748.00	29.9		
1055	62.2	2/15/2005 22:28	749.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1056	62.2	2/15/2005 22:29	750.00	29.9		
1057	62.3	2/15/2005 22:30	751.00	29.8		
1058	62.3	2/15/2005 22:31	752.00	29.8		
1059	62.3	2/15/2005 22:32	753.00	29.8		
1060	62.3	2/15/2005 22:33	754.00	29.8		
1061	62.3	2/15/2005 22:34	755.00	29.8		
1062	62.2	2/15/2005 22:35	756.00	29.9		
1063	62.3	2/15/2005 22:36	757.00	29.8		
1064	62.3	2/15/2005 22:37	758.00	29.8		
1065	62.2	2/15/2005 22:38	759.00	29.9		
1066	62.2	2/15/2005 22:39	760.00	29.9		
1067	62.2	2/15/2005 22:40	761.00	29.9		
1068	62.2	2/15/2005 22:41	762.00	29.9		
1069	62.3	2/15/2005 22:42	763.00	29.8		
1070	62.2	2/15/2005 22:43	764.00	29.9		
1071	62.2	2/15/2005 22:44	765.00	29.9		
1072	62.2	2/15/2005 22:45	766.00	29.9		
1073	62.3	2/15/2005 22:46	767.00	29.8		
1074	62.1	2/15/2005 22:47	768.00	30.0		
1075	62.3	2/15/2005 22:48	769.00	29.8		
1076	62.2	2/15/2005 22:49	770.00	29.9		
1077	62.2	2/15/2005 22:50	771.00	29.9		
1078	62.2	2/15/2005 22:51	772.00	29.9		
1079	62.3	2/15/2005 22:52	773.00	29.8		
1080	62.2	2/15/2005 22:53	774.00	29.9		
1081	62.2	2/15/2005 22:54	775.00	29.9		
1082	62.2	2/15/2005 22:55	776.00	29.9		
1083	62.2	2/15/2005 22:56	777.00	29.9		
1084	62.2	2/15/2005 22:57	778.00	29.9		
1085	62.3	2/15/2005 22:58	779.00	29.8		
1086	62.2	2/15/2005 22:59	780.00	29.9		
1087	62.2	2/15/2005 23:00	781.00	29.9		
1088	62.2	2/15/2005 23:01	782.00	29.9		
1089	62.2	2/15/2005 23:02	783.00	29.9		
1090	62.2	2/15/2005 23:03	784.00	29.9		
1091	62.2	2/15/2005 23:04	785.00	29.9		
1092	62.3	2/15/2005 23:05	786.00	29.8		
1093	62.2	2/15/2005 23:06	787.00	29.9		
1094	62.2	2/15/2005 23:07	788.00	29.9		
1095	62.2	2/15/2005 23:08	789.00	29.9		
1096	62.3	2/15/2005 23:09	790.00	29.8		
1097	62.2	2/15/2005 23:10	791.00	29.9		
1098	62.2	2/15/2005 23:11	792.00	29.9		
1099	62.3	2/15/2005 23:12	793.00	29.8		
1100	62.3	2/15/2005 23:13	794.00	29.8		
1101	62.2	2/15/2005 23:14	795.00	29.9		
1102	62.2	2/15/2005 23:15	796.00	29.9		
1103	62.2	2/15/2005 23:16	797.00	29.9		
1104	62.3	2/15/2005 23:17	798.00	29.8		
1105	62.2	2/15/2005 23:18	799.00	29.9		
1106	62.2	2/15/2005 23:19	800.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1107	62.2	2/15/2005 23:20	801.00	29.9		
1108	62.2	2/15/2005 23:21	802.00	29.9		
1109	62.3	2/15/2005 23:22	803.00	29.8		
1110	62.2	2/15/2005 23:23	804.00	29.9		
1111	62.3	2/15/2005 23:24	805.00	29.8		
1112	62.3	2/15/2005 23:25	806.00	29.8		
1113	62.3	2/15/2005 23:26	807.00	29.8		
1114	62.2	2/15/2005 23:27	808.00	29.9		
1115	62.2	2/15/2005 23:28	809.00	29.9		
1116	62.3	2/15/2005 23:29	810.00	29.8		
1117	62.2	2/15/2005 23:30	811.00	29.9		
1118	62.2	2/15/2005 23:31	812.00	29.9		
1119	62.2	2/15/2005 23:32	813.00	29.9		
1120	62.2	2/15/2005 23:33	814.00	29.9		
1121	62.2	2/15/2005 23:34	815.00	29.9		
1122	62.3	2/15/2005 23:35	816.00	29.8		
1123	62.2	2/15/2005 23:36	817.00	29.9		
1124	62.3	2/15/2005 23:37	818.00	29.8		
1125	62.2	2/15/2005 23:38	819.00	29.9		
1126	62.3	2/15/2005 23:39	820.00	29.8		
1127	62.3	2/15/2005 23:40	821.00	29.8		
1128	62.3	2/15/2005 23:41	822.00	29.8		
1129	62.3	2/15/2005 23:42	823.00	29.8		
1130	62.2	2/15/2005 23:43	824.00	29.9		
1131	62.2	2/15/2005 23:44	825.00	29.9		
1132	62.3	2/15/2005 23:45	826.00	29.8		
1133	62.3	2/15/2005 23:46	827.00	29.8		
1134	62.2	2/15/2005 23:47	828.00	29.9		
1135	62.3	2/15/2005 23:48	829.00	29.8		
1136	62.2	2/15/2005 23:49	830.00	29.9		
1137	62.2	2/15/2005 23:50	831.00	29.9		
1138	62.3	2/15/2005 23:51	832.00	29.8		
1139	62.2	2/15/2005 23:52	833.00	29.9		
1140	62.2	2/15/2005 23:53	834.00	29.9		
1141	62.2	2/15/2005 23:54	835.00	29.9		
1142	62.3	2/15/2005 23:55	836.00	29.8		
1143	62.2	2/15/2005 23:56	837.00	29.9		
1144	62.2	2/15/2005 23:57	838.00	29.9		
1145	62.3	2/15/2005 23:58	839.00	29.8		
1146	62.3	2/15/2005 23:59	840.00	29.8		
1147	62.3	2/16/2005 0:00	841.00	29.8		
1148	62.3	2/16/2005 0:01	842.00	29.8		
1149	62.2	2/16/2005 0:02	843.00	29.9		
1150	62.3	2/16/2005 0:03	844.00	29.8		
1151	62.2	2/16/2005 0:04	845.00	29.9		
1152	62.3	2/16/2005 0:05	846.00	29.8		
1153	62.3	2/16/2005 0:06	847.00	29.8		
1154	62.3	2/16/2005 0:07	848.00	29.8		
1155	62.2	2/16/2005 0:08	849.00	29.9		
1156	62.2	2/16/2005 0:09	850.00	29.9		
1157	62.3	2/16/2005 0:10	851.00	29.8		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1158	62.3	2/16/2005 0:11	852.00	29.8		
1159	62.3	2/16/2005 0:12	853.00	29.8		
1160	62.2	2/16/2005 0:13	854.00	29.9		
1161	62.3	2/16/2005 0:14	855.00	29.8		
1162	62.2	2/16/2005 0:15	856.00	29.9		
1163	62.2	2/16/2005 0:16	857.00	29.9		
1164	62.3	2/16/2005 0:17	858.00	29.8		
1165	62.3	2/16/2005 0:18	859.00	29.8		
1166	62.3	2/16/2005 0:19	860.00	29.8		
1167	62.3	2/16/2005 0:20	861.00	29.8		
1168	62.3	2/16/2005 0:21	862.00	29.8		
1169	62.2	2/16/2005 0:22	863.00	29.9		
1170	62.3	2/16/2005 0:23	864.00	29.8		
1171	62.2	2/16/2005 0:24	865.00	29.9		
1172	62.2	2/16/2005 0:25	866.00	29.9		
1173	62.3	2/16/2005 0:26	867.00	29.8		
1174	62.3	2/16/2005 0:27	868.00	29.8		
1175	62.3	2/16/2005 0:28	869.00	29.8		
1176	62.3	2/16/2005 0:29	870.00	29.8		
1177	62.3	2/16/2005 0:30	871.00	29.8		
1178	62.3	2/16/2005 0:31	872.00	29.8		
1179	62.3	2/16/2005 0:32	873.00	29.8		
1180	62.2	2/16/2005 0:33	874.00	29.9		
1181	62.2	2/16/2005 0:34	875.00	29.9		
1182	62.2	2/16/2005 0:35	876.00	29.9		
1183	62.2	2/16/2005 0:36	877.00	29.9		
1184	62.3	2/16/2005 0:37	878.00	29.8		
1185	62.3	2/16/2005 0:38	879.00	29.8		
1186	62.2	2/16/2005 0:39	880.00	29.9		
1187	62.2	2/16/2005 0:40	881.00	29.9		
1188	62.3	2/16/2005 0:41	882.00	29.8		
1189	62.3	2/16/2005 0:42	883.00	29.8		
1190	62.2	2/16/2005 0:43	884.00	29.9		
1191	62.1	2/16/2005 0:44	885.00	30.0		
1192	62.2	2/16/2005 0:45	886.00	29.9		
1193	62.2	2/16/2005 0:46	887.00	29.9		
1194	62.3	2/16/2005 0:47	888.00	29.8		
1195	62.2	2/16/2005 0:48	889.00	29.9		
1196	62.2	2/16/2005 0:49	890.00	29.9		
1197	62.2	2/16/2005 0:50	891.00	29.9		
1198	62.3	2/16/2005 0:51	892.00	29.8		
1199	62.3	2/16/2005 0:52	893.00	29.8		
1200	62.3	2/16/2005 0:53	894.00	29.8		
1201	62.3	2/16/2005 0:54	895.00	29.8		
1202	62.2	2/16/2005 0:55	896.00	29.9		
1203	62.2	2/16/2005 0:56	897.00	29.9		
1204	62.2	2/16/2005 0:57	898.00	29.9		
1205	62.2	2/16/2005 0:58	899.00	29.9		
1206	62.2	2/16/2005 0:59	900.00	29.9		
1207	62.3	2/16/2005 1:00	901.00	29.8		
1208	62.2	2/16/2005 1:01	902.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1209	62.2	2/16/2005 1:02	903.00	29.9		
1210	62.2	2/16/2005 1:03	904.00	29.9		
1211	62.3	2/16/2005 1:04	905.00	29.8		
1212	62.2	2/16/2005 1:05	906.00	29.9		
1213	62.3	2/16/2005 1:06	907.00	29.8		
1214	62.3	2/16/2005 1:07	908.00	29.8		
1215	62.2	2/16/2005 1:08	909.00	29.9		
1216	62.3	2/16/2005 1:09	910.00	29.8		
1217	62.3	2/16/2005 1:10	911.00	29.8		
1218	62.3	2/16/2005 1:11	912.00	29.8		
1219	62.3	2/16/2005 1:12	913.00	29.8		
1220	62.3	2/16/2005 1:13	914.00	29.8		
1221	62.2	2/16/2005 1:14	915.00	29.9		
1222	62.2	2/16/2005 1:15	916.00	29.9		
1223	62.2	2/16/2005 1:16	917.00	29.9		
1224	62.2	2/16/2005 1:17	918.00	29.9		
1225	62.3	2/16/2005 1:18	919.00	29.8		
1226	62.2	2/16/2005 1:19	920.00	29.9		
1227	62.2	2/16/2005 1:20	921.00	29.9		
1228	62.2	2/16/2005 1:21	922.00	29.9		
1229	62.3	2/16/2005 1:22	923.00	29.8		
1230	62.2	2/16/2005 1:23	924.00	29.9		
1231	62.3	2/16/2005 1:24	925.00	29.8		
1232	62.3	2/16/2005 1:25	926.00	29.8		
1233	62.3	2/16/2005 1:26	927.00	29.8		
1234	62.3	2/16/2005 1:27	928.00	29.8		
1235	62.3	2/16/2005 1:28	929.00	29.8		
1236	62.3	2/16/2005 1:29	930.00	29.8		
1237	62.2	2/16/2005 1:30	931.00	29.9		
1238	62.3	2/16/2005 1:31	932.00	29.8		
1239	62.2	2/16/2005 1:32	933.00	29.9		
1240	62.3	2/16/2005 1:33	934.00	29.8		
1241	62.3	2/16/2005 1:34	935.00	29.8		
1242	62.3	2/16/2005 1:35	936.00	29.8		
1243	62.3	2/16/2005 1:36	937.00	29.8		
1244	62.3	2/16/2005 1:37	938.00	29.8		
1245	62.3	2/16/2005 1:38	939.00	29.8		
1246	62.2	2/16/2005 1:39	940.00	29.9		
1247	62.3	2/16/2005 1:40	941.00	29.8		
1248	62.2	2/16/2005 1:41	942.00	29.9		
1249	62.2	2/16/2005 1:42	943.00	29.9		
1250	62.3	2/16/2005 1:43	944.00	29.8		
1251	62.2	2/16/2005 1:44	945.00	29.9		
1252	62.2	2/16/2005 1:45	946.00	29.9		
1253	62.2	2/16/2005 1:46	947.00	29.9		
1254	62.3	2/16/2005 1:47	948.00	29.8		
1255	62.2	2/16/2005 1:48	949.00	29.9		
1256	62.3	2/16/2005 1:49	950.00	29.8		
1257	62.3	2/16/2005 1:50	951.00	29.8		
1258	62.2	2/16/2005 1:51	952.00	29.9		
1259	62.3	2/16/2005 1:52	953.00	29.8		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1260	62.3	2/16/2005 1:53	954.00	29.8		
1261	62.2	2/16/2005 1:54	955.00	29.9		
1262	62.3	2/16/2005 1:55	956.00	29.8		
1263	62.3	2/16/2005 1:56	957.00	29.8		
1264	62.3	2/16/2005 1:57	958.00	29.8		
1265	62.3	2/16/2005 1:58	959.00	29.8		
1266	62.3	2/16/2005 1:59	960.00	29.8		
1267	62.3	2/16/2005 2:00	961.00	29.8		
1268	62.3	2/16/2005 2:01	962.00	29.8		
1269	62.3	2/16/2005 2:02	963.00	29.8		
1270	62.3	2/16/2005 2:03	964.00	29.8		
1271	62.3	2/16/2005 2:04	965.00	29.8		
1272	62.2	2/16/2005 2:05	966.00	29.9		
1273	62.3	2/16/2005 2:06	967.00	29.8		
1274	62.2	2/16/2005 2:07	968.00	29.9		
1275	62.3	2/16/2005 2:08	969.00	29.8		
1276	62.2	2/16/2005 2:09	970.00	29.9		
1277	62.3	2/16/2005 2:10	971.00	29.8		
1278	62.3	2/16/2005 2:11	972.00	29.8		
1279	62.3	2/16/2005 2:12	973.00	29.8		
1280	62.3	2/16/2005 2:13	974.00	29.8		
1281	62.2	2/16/2005 2:14	975.00	29.9		
1282	62.3	2/16/2005 2:15	976.00	29.8		
1283	62.3	2/16/2005 2:16	977.00	29.8		
1284	62.3	2/16/2005 2:17	978.00	29.8		
1285	62.3	2/16/2005 2:18	979.00	29.8		
1286	62.3	2/16/2005 2:19	980.00	29.8		
1287	62.3	2/16/2005 2:20	981.00	29.8		
1288	62.3	2/16/2005 2:21	982.00	29.8		
1289	62.2	2/16/2005 2:22	983.00	29.9		
1290	62.3	2/16/2005 2:23	984.00	29.8		
1291	62.2	2/16/2005 2:28	989.00	29.9		
1292	62.1	2/16/2005 2:33	994.00	30.0		
1293	62.1	2/16/2005 2:38	999.00	30.0		
1294	62.1	2/16/2005 2:43	1004.00	30.0		
1295	62.1	2/16/2005 2:48	1009.00	30.0		
1296	62.1	2/16/2005 2:53	1014.00	29.9		
1297	62.1	2/16/2005 2:58	1019.00	29.9		
1298	62.1	2/16/2005 3:03	1024.00	29.9		
1299	62.1	2/16/2005 3:08	1029.00	29.9		
1300	62.1	2/16/2005 3:13	1034.00	29.9		
1301	62.1	2/16/2005 3:18	1039.00	29.9		
1302	62.1	2/16/2005 3:23	1044.00	29.9		
1303	62.1	2/16/2005 3:28	1049.00	29.9		
1304	62.1	2/16/2005 3:33	1054.00	29.9		
1305	62.1	2/16/2005 3:38	1059.00	29.9		
1306	62.0	2/16/2005 3:43	1064.00	30.0		
1307	62.0	2/16/2005 3:48	1069.00	30.0		
1308	62.1	2/16/2005 3:53	1074.00	29.9		
1309	62.1	2/16/2005 3:58	1079.00	29.9		
1310	62.0	2/16/2005 4:03	1084.00	30.0		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1311	62.1	2/16/2005 4:08	1089.00	29.9		
1312	62.0	2/16/2005 4:13	1094.00	30.0		
1313	62.1	2/16/2005 4:18	1099.00	29.9		
1314	62.1	2/16/2005 4:23	1104.00	29.9		
1315	62.1	2/16/2005 4:28	1109.00	29.9		
1316	62.0	2/16/2005 4:33	1114.00	30.0		
1317	62.1	2/16/2005 4:38	1119.00	29.9		
1318	62.0	2/16/2005 4:43	1124.00	30.0		
1319	62.1	2/16/2005 4:48	1129.00	29.9		
1320	62.1	2/16/2005 4:53	1134.00	29.9		
1321	62.0	2/16/2005 4:58	1139.00	30.0		
1322	62.1	2/16/2005 5:03	1144.00	29.9		
1323	62.1	2/16/2005 5:08	1149.00	30.0		
1324	62.1	2/16/2005 5:13	1154.00	30.0		
1325	62.1	2/16/2005 5:18	1159.00	30.0		
1326	62.1	2/16/2005 5:23	1164.00	30.0		
1327	62.1	2/16/2005 5:28	1169.00	30.0		
1328	62.1	2/16/2005 5:33	1174.00	30.0		
1329	62.2	2/16/2005 5:38	1179.00	29.9		
1330	62.2	2/16/2005 5:43	1184.00	29.9		
1331	62.1	2/16/2005 5:48	1189.00	30.0		
1332	62.2	2/16/2005 5:53	1194.00	29.9		
1333	62.1	2/16/2005 5:58	1199.00	30.0		
1334	62.1	2/16/2005 6:03	1204.00	30.0		
1335	62.1	2/16/2005 6:08	1209.00	30.0		
1336	62.1	2/16/2005 6:13	1214.00	30.0		
1337	62.1	2/16/2005 6:18	1219.00	30.0		
1338	62.1	2/16/2005 6:23	1224.00	30.0		
1339	62.2	2/16/2005 6:28	1229.00	29.9		
1340	62.2	2/16/2005 6:33	1234.00	29.9		
1341	62.2	2/16/2005 6:38	1239.00	29.9		
1342	62.1	2/16/2005 6:43	1244.00	30.0		
1343	62.1	2/16/2005 6:48	1249.00	30.0		
1344	62.2	2/16/2005 6:53	1254.00	29.9		
1345	62.1	2/16/2005 6:58	1259.00	30.0		
1346	62.1	2/16/2005 7:03	1264.00	30.0		
1347	62.1	2/16/2005 7:08	1269.00	30.0		
1348	62.1	2/16/2005 7:13	1274.00	30.0		
1349	62.1	2/16/2005 7:18	1279.00	30.0		
1350	62.2	2/16/2005 7:23	1284.00	29.9		
1351	62.1	2/16/2005 7:28	1289.00	30.0		
1352	62.1	2/16/2005 7:33	1294.00	30.0		
1353	62.1	2/16/2005 7:38	1299.00	30.0		
1354	62.2	2/16/2005 7:43	1304.00	29.9		
1355	62.2	2/16/2005 7:48	1309.00	29.9		
1356	62.1	2/16/2005 7:53	1314.00	30.0		
1357	62.1	2/16/2005 7:58	1319.00	30.0		
1358	62.1	2/16/2005 8:03	1324.00	30.0		
1359	62.2	2/16/2005 8:08	1329.00	29.9		
1360	62.2	2/16/2005 8:13	1334.00	29.9		
1361	62.2	2/16/2005 8:18	1339.00	29.9		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1362	62.2	2/16/2005 8:23	1344.00	29.9		
1363	62.2	2/16/2005 8:28	1349.00	29.9		
1364	62.2	2/16/2005 8:33	1354.00	29.9		
1365	62.2	2/16/2005 8:38	1359.00	29.9		
1366	62.2	2/16/2005 8:43	1364.00	29.9		
1367	62.2	2/16/2005 8:48	1369.00	29.9		
1368	62.2	2/16/2005 8:53	1374.00	29.9		
1369	62.2	2/16/2005 8:58	1379.00	29.9		
1370	62.1	2/16/2005 9:03	1384.00	30.0		
1371	62.1	2/16/2005 9:08	1389.00	30.0		
1372	61.5	2/16/2005 9:13	1394.00	30.6		
1373	60.9	2/16/2005 9:18	1399.00	31.2		
1374	60.9	2/16/2005 9:23	1404.00	31.2		
1375	61.1	2/16/2005 9:28	1409.00	31.0		
1376	61.1	2/16/2005 9:33	1414.00	31.0		
1377	61.0	2/16/2005 9:38	1419.00	31.1		
1378	61.1	2/16/2005 9:43	1424.00	31.0		
1379	61.1	2/16/2005 9:48	1429.00	31.0		
1380	61.0	2/16/2005 9:53	1434.00	31.1		
1381	61.0	2/16/2005 9:58	1439.00	31.1		
1382	61.1	2/16/2005 10:03	1444.00	31.0		
1383	61.1	2/16/2005 10:08	1449.00	31.0		
1384	61.0	2/16/2005 10:13	1454.00	31.1		
1385	61.0	2/16/2005 10:18	1459.00	31.1		
1386	60.8	2/16/2005 10:23	1464.00	31.3		
1387	60.8	2/16/2005 10:28	1469.00	31.3		
1388	60.7	2/16/2005 10:33	1474.00	31.4		
1389	60.7	2/16/2005 10:38	1479.00	31.4		
1390	60.8	2/16/2005 10:43	1484.00	31.3		
1391	60.8	2/16/2005 10:48	1489.00	31.3		
1392	60.8	2/16/2005 10:53	1494.00	31.2		
1393	60.7	2/16/2005 10:58	1499.00	31.3		
1394	60.6	2/16/2005 11:03	1504.00	31.4		
1395	60.7	2/16/2005 11:08	1509.00	31.4		
1396	60.7	2/16/2005 11:13	1514.00	31.4		
1397	60.8	2/16/2005 11:18	1519.00	31.3		
1398	60.8	2/16/2005 11:23	1524.00	31.3		
1399	60.8	2/16/2005 11:28	1529.00	31.3		
1400	60.8	2/16/2005 11:33	1534.00	31.3		
1401	60.8	2/16/2005 11:38	1539.00	31.3		
1402	60.8	2/16/2005 11:43	1544.00	31.3		
1403	60.8	2/16/2005 11:48	1549.00	31.3		
1404	60.8	2/16/2005 11:53	1554.00	31.3		
1405	60.8	2/16/2005 11:58	1559.00	31.3		
1406	60.8	2/16/2005 12:03	1564.00	31.3		
1407	60.8	2/16/2005 12:08	1569.00	31.3		
1408	60.7	2/16/2005 12:13	1574.00	31.4		
1409	60.8	2/16/2005 12:18	1579.00	31.3		
1410	60.7	2/16/2005 12:23	1584.00	31.4		
1411	60.7	2/16/2005 12:28	1589.00	31.4		
1412	60.8	2/16/2005 12:33	1594.00	31.3		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1413	60.8	2/16/2005 12:38	1599.00	31.3		
1414	60.8	2/16/2005 12:43	1604.00	31.3		
1415	60.8	2/16/2005 12:48	1609.00	31.3		
1416	60.8	2/16/2005 12:53	1614.00	31.3		
1417	60.8	2/16/2005 12:58	1619.00	31.3		
1418	60.8	2/16/2005 13:03	1624.00	31.3		
1419	60.7	2/16/2005 13:08	1629.00	31.4		
1420	60.8	2/16/2005 13:13	1634.00	31.3		
1421	60.7	2/16/2005 13:18	1639.00	31.4		
1422	60.7	2/16/2005 13:23	1644.00	31.4		
1423	60.7	2/16/2005 13:28	1649.00	31.4		
1424	60.7	2/16/2005 13:33	1654.00	31.4		
1425	60.7	2/16/2005 13:38	1659.00	31.4		
1426	60.8	2/16/2005 13:43	1664.00	31.3		
1427	60.7	2/16/2005 13:48	1669.00	31.4		
1428	60.7	2/16/2005 13:53	1674.00	31.4		
1429	60.7	2/16/2005 13:58	1679.00	31.4		
1430	60.7	2/16/2005 14:03	1684.00	31.4		
1431	60.7	2/16/2005 14:08	1689.00	31.4		
1432	60.7	2/16/2005 14:13	1694.00	31.4		
1433	60.8	2/16/2005 14:18	1699.00	31.3		
1434	60.7	2/16/2005 14:23	1704.00	31.4		
1435	60.7	2/16/2005 14:28	1709.00	31.4		
1436	60.7	2/16/2005 14:33	1714.00	31.4		
1437	60.7	2/16/2005 14:38	1719.00	31.4		
1438	60.7	2/16/2005 14:43	1724.00	31.4		
1439	60.7	2/16/2005 14:48	1729.00	31.4		
1440	60.7	2/16/2005 14:53	1734.00	31.3		
1441	60.7	2/16/2005 14:58	1739.00	31.3		
1442	60.7	2/16/2005 15:03	1744.00	31.3		
1443	60.7	2/16/2005 15:08	1749.00	31.3		
1444	60.7	2/16/2005 15:13	1754.00	31.3		
1445	60.7	2/16/2005 15:18	1759.00	31.3		
1446	60.7	2/16/2005 15:23	1764.00	31.3		
1447	60.7	2/16/2005 15:28	1769.00	31.3		
1448	60.7	2/16/2005 15:33	1774.00	31.3		
1449	60.7	2/16/2005 15:38	1779.00	31.3		
1450	60.7	2/16/2005 15:43	1784.00	31.3		
1451	60.7	2/16/2005 15:48	1789.00	31.3		
1452	60.8	2/16/2005 15:53	1794.00	31.3		
1453	60.7	2/16/2005 15:58	1799.00	31.4		
1454	60.8	2/16/2005 16:03	1804.00	31.3		
1455	60.7	2/16/2005 16:08	1809.00	31.3		
1456	60.7	2/16/2005 16:13	1814.00	31.3		
1457	60.7	2/16/2005 16:18	1819.00	31.3		
1458	60.7	2/16/2005 16:23	1824.00	31.3		
1459	60.7	2/16/2005 16:28	1829.00	31.3		
1460	60.7	2/16/2005 16:33	1834.00	31.3		
1461	60.7	2/16/2005 16:38	1839.00	31.3		
1462	61.0	2/16/2005 16:43	1844.00	31.0		
1463	61.2	2/16/2005 16:48	1849.00	30.8		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1464	61.3	2/16/2005 16:53	1854.00	30.7		
1465	61.2	2/16/2005 16:58	1859.00	30.8		
1466	61.2	2/16/2005 17:03	1864.00	30.8		
1467	61.2	2/16/2005 17:08	1869.00	30.8		
1468	61.2	2/16/2005 17:13	1874.00	30.8		
1469	61.1	2/16/2005 17:18	1879.00	30.9		
1470	61.3	2/16/2005 17:23	1884.00	30.8		
1471	61.4	2/16/2005 17:28	1889.00	30.7		
1472	61.3	2/16/2005 17:33	1894.00	30.8		
1473	61.2	2/16/2005 17:38	1899.00	30.8		
1474	61.2	2/16/2005 17:43	1904.00	30.8		
1475	61.2	2/16/2005 17:48	1909.00	30.8		
1476	61.2	2/16/2005 17:53	1914.00	30.8		
1477	61.3	2/16/2005 17:58	1919.00	30.7		
1478	61.2	2/16/2005 18:03	1924.00	30.8		
1479	61.3	2/16/2005 18:08	1929.00	30.7		
1480	61.2	2/16/2005 18:13	1934.00	30.8		
1481	61.2	2/16/2005 18:18	1939.00	30.8		
1482	61.2	2/16/2005 18:23	1944.00	30.8		
1483	61.2	2/16/2005 18:28	1949.00	30.8		
1484	61.3	2/16/2005 18:33	1954.00	30.7		
1485	61.3	2/16/2005 18:38	1959.00	30.7		
1486	61.2	2/16/2005 18:43	1964.00	30.8		
1487	61.2	2/16/2005 18:48	1969.00	30.8		
1488	61.2	2/16/2005 18:53	1974.00	30.8		
1489	61.2	2/16/2005 18:58	1979.00	30.8		
1490	61.3	2/16/2005 19:03	1984.00	30.7		
1491	61.2	2/16/2005 19:08	1989.00	30.8		
1492	61.2	2/16/2005 19:13	1994.00	30.8		
1493	61.2	2/16/2005 19:18	1999.00	30.8		
1494	61.3	2/16/2005 19:23	2004.00	30.7		
1495	61.3	2/16/2005 19:28	2009.00	30.7		
1496	61.2	2/16/2005 19:33	2014.00	30.8		
1497	61.3	2/16/2005 19:38	2019.00	30.7		
1498	61.2	2/16/2005 19:43	2024.00	30.8		
1499	61.3	2/16/2005 19:48	2029.00	30.7		
1500	61.2	2/16/2005 19:53	2034.00	30.8		
1501	61.3	2/16/2005 19:58	2039.00	30.7		
1502	61.2	2/16/2005 20:03	2044.00	30.8		
1503	61.2	2/16/2005 20:08	2049.00	30.8		
1504	61.2	2/16/2005 20:13	2054.00	30.8		
1505	61.3	2/16/2005 20:18	2059.00	30.7		
1506	61.2	2/16/2005 20:23	2064.00	30.8		
1507	61.2	2/16/2005 20:28	2069.00	30.8		
1508	61.2	2/16/2005 20:33	2074.00	30.8		
1509	61.2	2/16/2005 20:38	2079.00	30.8		
1510	61.2	2/16/2005 20:43	2084.00	30.8		
1511	61.2	2/16/2005 20:48	2089.00	30.8		
1512	61.2	2/16/2005 20:53	2094.00	30.8		
1513	61.3	2/16/2005 20:58	2099.00	30.7		
1514	61.3	2/16/2005 21:03	2104.00	30.7		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected	Date & Time, PV-4 Logger	Time Since Pumping Began	Barometrically Corrected Drawdown	Time Since Pumping Stopped	t/t'
	(ft)		(minutes)	(ft)	(minutes)	
1515	61.3	2/16/2005 21:08	2109.00	30.8		
1516	61.4	2/16/2005 21:13	2114.00	30.7		
1517	61.3	2/16/2005 21:18	2119.00	30.8		
1518	61.2	2/16/2005 21:23	2124.00	30.9		
1519	61.3	2/16/2005 21:28	2129.00	30.8		
1520	61.4	2/16/2005 21:33	2134.00	30.7		
1521	61.3	2/16/2005 21:38	2139.00	30.8		
1522	61.3	2/16/2005 21:43	2144.00	30.8		
1523	61.4	2/16/2005 21:48	2149.00	30.7		
1524	61.3	2/16/2005 21:53	2154.00	30.8		
1525	61.3	2/16/2005 21:58	2159.00	30.8		
1526	61.3	2/16/2005 22:03	2164.00	30.8		
1527	61.3	2/16/2005 22:08	2169.00	30.7		
1528	61.3	2/16/2005 22:13	2174.00	30.7		
1529	61.2	2/16/2005 22:18	2179.00	30.8		
1530	61.4	2/16/2005 22:23	2184.00	30.7		
1531	61.3	2/16/2005 22:28	2189.00	30.8		
1532	61.3	2/16/2005 22:33	2194.00	30.8		
1533	61.3	2/16/2005 22:38	2199.00	30.8		
1534	61.3	2/16/2005 22:43	2204.00	30.8		
1535	61.3	2/16/2005 22:48	2209.00	30.8		
1536	61.4	2/16/2005 22:53	2214.00	30.7		
1537	61.4	2/16/2005 22:58	2219.00	30.7		
1538	61.3	2/16/2005 23:03	2224.00	30.8		
1539	61.3	2/16/2005 23:08	2229.00	30.8		
1540	61.3	2/16/2005 23:13	2234.00	30.8		
1541	61.3	2/16/2005 23:18	2239.00	30.8		
1542	61.3	2/16/2005 23:23	2244.00	30.8		
1543	61.3	2/16/2005 23:28	2249.00	30.8		
1544	61.3	2/16/2005 23:33	2254.00	30.8		
1545	61.4	2/16/2005 23:38	2259.00	30.7		
1546	61.3	2/16/2005 23:43	2264.00	30.8		
1547	61.3	2/16/2005 23:48	2269.00	30.8		
1548	61.3	2/16/2005 23:53	2274.00	30.8		
1549	61.3	2/16/2005 23:58	2279.00	30.8		
1550	61.3	2/17/2005 0:03	2284.00	30.8		
1551	61.3	2/17/2005 0:08	2289.00	30.8		
1552	61.3	2/17/2005 0:13	2294.00	30.8		
1553	61.3	2/17/2005 0:18	2299.00	30.8		
1554	61.3	2/17/2005 0:23	2304.00	30.8		
1555	61.3	2/17/2005 0:28	2309.00	30.8		
1556	61.4	2/17/2005 0:33	2314.00	30.7		
1557	61.3	2/17/2005 0:38	2319.00	30.8		
1558	61.3	2/17/2005 0:43	2324.00	30.8		
1559	61.3	2/17/2005 0:48	2329.00	30.8		
1560	61.3	2/17/2005 0:53	2334.00	30.8		
1561	61.3	2/17/2005 0:58	2339.00	30.8		
1562	61.3	2/17/2005 1:03	2344.00	30.8		
1563	61.3	2/17/2005 1:08	2349.00	30.8		
1564	61.4	2/17/2005 1:13	2354.00	30.7		
1565	61.4	2/17/2005 1:18	2359.00	30.7		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1566	61.4	2/17/2005 1:23	2364.00	30.7		
1567	61.2	2/17/2005 1:28	2369.00	30.9		
1568	61.3	2/17/2005 1:33	2374.00	30.8		
1569	61.3	2/17/2005 1:38	2379.00	30.8		
1570	61.3	2/17/2005 1:43	2384.00	30.8		
1571	61.3	2/17/2005 1:48	2389.00	30.8		
1572	61.2	2/17/2005 1:53	2394.00	30.9		
1573	61.3	2/17/2005 1:58	2399.00	30.8		
1574	61.3	2/17/2005 2:03	2404.00	30.8		
1575	61.3	2/17/2005 2:08	2409.00	30.7		
1576	61.3	2/17/2005 2:13	2414.00	30.7		
1577	61.3	2/17/2005 2:18	2419.00	30.7		
1578	61.3	2/17/2005 2:23	2424.00	30.8		
1579	61.3	2/17/2005 2:28	2429.00	30.8		
1580	61.3	2/17/2005 2:33	2434.00	30.8		
1581	61.3	2/17/2005 2:38	2439.00	30.7		
1582	61.3	2/17/2005 2:43	2444.00	30.7		
1583	61.3	2/17/2005 2:48	2449.00	30.7		
1584	61.3	2/17/2005 2:53	2454.00	30.7		
1585	61.3	2/17/2005 2:58	2459.00	30.7		
1586	61.3	2/17/2005 3:03	2464.00	30.7		
1587	61.4	2/17/2005 3:08	2469.00	30.7		
1588	61.4	2/17/2005 3:13	2474.00	30.7		
1589	61.3	2/17/2005 3:18	2479.00	30.8		
1590	61.3	2/17/2005 3:23	2484.00	30.7		
1591	61.2	2/17/2005 3:28	2489.00	30.8		
1592	61.3	2/17/2005 3:33	2494.00	30.7		
1593	61.3	2/17/2005 3:38	2499.00	30.8		
1594	61.3	2/17/2005 3:43	2504.00	30.8		
1595	61.4	2/17/2005 3:48	2509.00	30.7		
1596	61.5	2/17/2005 3:53	2514.00	30.6		
1597	61.4	2/17/2005 3:58	2519.00	30.7		
1598	61.3	2/17/2005 4:03	2524.00	30.8		
1599	61.2	2/17/2005 4:08	2529.00	30.8		
1600	61.4	2/17/2005 4:13	2534.00	30.6		
1601	61.3	2/17/2005 4:18	2539.00	30.7		
1602	61.4	2/17/2005 4:23	2544.00	30.7		
1603	61.4	2/17/2005 4:28	2549.00	30.7		
1604	61.4	2/17/2005 4:33	2554.00	30.7		
1605	61.4	2/17/2005 4:38	2559.00	30.7		
1606	61.4	2/17/2005 4:43	2564.00	30.7		
1607	61.4	2/17/2005 4:48	2569.00	30.7		
1608	61.4	2/17/2005 4:53	2574.00	30.7		
1609	61.4	2/17/2005 4:58	2579.00	30.7		
1610	61.4	2/17/2005 5:03	2584.00	30.7		
1611	61.5	2/17/2005 5:08	2589.00	30.6		
1612	61.4	2/17/2005 5:13	2594.00	30.7		
1613	61.4	2/17/2005 5:18	2599.00	30.7		
1614	61.3	2/17/2005 5:23	2604.00	30.8		
1615	61.4	2/17/2005 5:28	2609.00	30.7		
1616	61.4	2/17/2005 5:33	2614.00	30.7		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected	Date & Time, PV-4 Logger	Time Since Pumping Began	Barometrically Corrected Drawdown	Time Since Pumping Stopped	t/t'
	(ft)		(minutes)	(ft)	(minutes)	
1617	61.4	2/17/2005 5:38	2619.00	30.7		
1618	61.3	2/17/2005 5:43	2624.00	30.8		
1619	61.4	2/17/2005 5:48	2629.00	30.7		
1620	61.5	2/17/2005 5:53	2634.00	30.6		
1621	61.4	2/17/2005 5:58	2639.00	30.7		
1622	61.3	2/17/2005 6:03	2644.00	30.8		
1623	61.4	2/17/2005 6:08	2649.00	30.7		
1624	61.4	2/17/2005 6:13	2654.00	30.7		
1625	61.4	2/17/2005 6:18	2659.00	30.7		
1626	61.3	2/17/2005 6:23	2664.00	30.8		
1627	61.3	2/17/2005 6:28	2669.00	30.8		
1628	61.4	2/17/2005 6:33	2674.00	30.7		
1629	61.4	2/17/2005 6:38	2679.00	30.7		
1630	61.4	2/17/2005 6:43	2684.00	30.7		
1631	61.5	2/17/2005 6:48	2689.00	30.6		
1632	61.3	2/17/2005 6:53	2694.00	30.8		
1633	61.4	2/17/2005 6:58	2699.00	30.7		
1634	61.3	2/17/2005 7:03	2704.00	30.8		
1635	61.3	2/17/2005 7:08	2709.00	30.8		
1636	61.4	2/17/2005 7:13	2714.00	30.7		
1637	61.4	2/17/2005 7:18	2719.00	30.7		
1638	61.5	2/17/2005 7:23	2724.00	30.6		
1639	61.4	2/17/2005 7:28	2729.00	30.7		
1640	61.4	2/17/2005 7:33	2734.00	30.7		
1641	61.4	2/17/2005 7:38	2739.00	30.7		
1642	61.4	2/17/2005 7:43	2744.00	30.7		
1643	61.4	2/17/2005 7:48	2749.00	30.7		
1644	61.4	2/17/2005 7:53	2754.00	30.7		
1645	61.4	2/17/2005 7:58	2759.00	30.7		
1646	61.4	2/17/2005 8:03	2764.00	30.7		
1647	61.4	2/17/2005 8:08	2769.00	30.7		
1648	61.4	2/17/2005 8:13	2774.00	30.7		
1649	61.3	2/17/2005 8:18	2779.00	30.8		
1650	61.4	2/17/2005 8:23	2784.00	30.7		
1651	61.4	2/17/2005 8:28	2789.00	30.7		
1652	61.4	2/17/2005 8:33	2794.00	30.7		
1653	59.8	2/17/2005 8:38	2799.00	32.3		
1654	59.2	2/17/2005 8:43	2804.00	32.9		
1655	59.2	2/17/2005 8:48	2809.00	32.9		
1656	59.1	2/17/2005 8:53	2814.00	33.0		
1657	59.2	2/17/2005 8:58	2819.00	32.9		
1658	59.1	2/17/2005 9:03	2824.00	33.0		
1659	59.2	2/17/2005 9:08	2829.00	32.9		
1660	59.2	2/17/2005 9:13	2834.00	32.9		
1661	59.2	2/17/2005 9:18	2839.00	32.9		
1662	59.1	2/17/2005 9:23	2844.00	33.0		
1663	59.1	2/17/2005 9:28	2849.00	33.0		
1664	59.2	2/17/2005 9:33	2854.00	32.9		
1665	59.2	2/17/2005 9:38	2859.00	32.9		
1666	59.2	2/17/2005 9:43	2864.00	32.9		
1667	59.1	2/17/2005 9:48	2869.00	33.0		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1668	59.0	2/17/2005 9:53	2874.00	33.0		
1669	59.0	2/17/2005 9:58	2879.00	33.0		
1670	59.1	2/17/2005 10:03	2884.00	32.9		
1671	59.1	2/17/2005 10:08	2889.00	32.9		
1672	59.0	2/17/2005 10:13	2894.00	33.0		
1673	59.1	2/17/2005 10:18	2899.00	32.9		
1674	59.2	2/17/2005 10:23	2904.00	32.9		
1675	59.1	2/17/2005 10:28	2909.00	33.0		
1676	59.1	2/17/2005 10:33	2914.00	33.0		
1677	59.0	2/17/2005 10:38	2919.00	33.0		
1678	59.1	2/17/2005 10:43	2924.00	32.9		
1679	59.1	2/17/2005 10:48	2929.00	32.9		
1680	59.2	2/17/2005 10:53	2934.00	32.8		
1681	59.1	2/17/2005 10:58	2939.00	32.9		
1682	59.2	2/17/2005 11:03	2944.00	32.8		
1683	59.1	2/17/2005 11:08	2949.00	32.9		
1684	59.2	2/17/2005 11:13	2954.00	32.8		
1685	59.2	2/17/2005 11:18	2959.00	32.8		
1686	59.2	2/17/2005 11:23	2964.00	32.9		
1687	59.2	2/17/2005 11:28	2969.00	32.9		
1688	59.2	2/17/2005 11:33	2974.00	32.9		
1689	59.2	2/17/2005 11:38	2979.00	32.9		
1690	59.2	2/17/2005 11:43	2984.00	32.9		
1691	59.2	2/17/2005 11:48	2989.00	32.9		
1692	59.2	2/17/2005 11:53	2994.00	32.9		
1693	59.3	2/17/2005 11:58	2999.00	32.8		
1694	59.2	2/17/2005 12:03	3004.00	32.9		
1695	59.2	2/17/2005 12:08	3009.00	32.9		
1696	59.3	2/17/2005 12:13	3014.00	32.8		
1697	59.3	2/17/2005 12:18	3019.00	32.8		
1698	59.2	2/17/2005 12:23	3024.00	32.9		
1699	59.3	2/17/2005 12:28	3029.00	32.8		
1700	59.3	2/17/2005 12:33	3034.00	32.8		
1701	59.3	2/17/2005 12:38	3039.00	32.8		
1702	59.3	2/17/2005 12:43	3044.00	32.8		
1703	59.2	2/17/2005 12:48	3049.00	32.9		
1704	59.3	2/17/2005 12:53	3054.00	32.8		
1705	59.2	2/17/2005 12:58	3059.00	32.9		
1706	59.2	2/17/2005 13:03	3064.00	32.9		
1707	59.2	2/17/2005 13:08	3069.00	32.9		
1708	59.2	2/17/2005 13:13	3074.00	32.9		
1709	59.3	2/17/2005 13:18	3079.00	32.8		
1710	59.1	2/17/2005 13:23	3084.00	32.9		
1711	59.1	2/17/2005 13:28	3089.00	32.9		
1712	59.1	2/17/2005 13:33	3094.00	32.9		
1713	59.1	2/17/2005 13:38	3099.00	32.9		
1714	59.1	2/17/2005 13:43	3104.00	32.9		
1715	59.1	2/17/2005 13:48	3109.00	32.9		
1716	59.1	2/17/2005 13:53	3114.00	32.9		
1717	59.1	2/17/2005 13:58	3119.00	32.9		
1718	59.2	2/17/2005 14:03	3124.00	32.8		

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1719	59.2	2/17/2005 14:08	3129.00	32.9		
1720	59.1	2/17/2005 14:13	3134.00	33.0		
1721	59.2	2/17/2005 14:18	3139.00	32.9		
1722	59.1	2/17/2005 14:23	3144.00	32.9		
1723	59.2	2/17/2005 14:28	3149.00	32.8		
1724	59.2	2/17/2005 14:33	3154.00	32.8		
1725	59.1	2/17/2005 14:38	3159.00	33.0		
1726	59.1	2/17/2005 14:43	3164.00	33.0		
1727	59.1	2/17/2005 14:48	3169.00	33.0		
1728	59.2	2/17/2005 14:53	3174.00	32.9	Time Pumping Stopped	
1729	59.2	2/17/2005 14:58	3179.00	32.9	2/17/2005 15:05	
1730	59.2	2/17/2005 15:03	3184.00	32.9		
	Manual		3185.00	16.0	1	3185
	Measurements		3186.00	7.4	2	1593
			3187.00	4.2	3	1062
1731	90.2	2/17/2005 15:08	3189.00	1.8	3.92	814
1732	90.6	2/17/2005 15:13	3194.00	1.5	8.92	358
1733	90.7	2/17/2005 15:18	3199.00	1.3	13.92	230
1734	90.8	2/17/2005 15:23	3204.00	1.3	18.92	169
1735	90.9	2/17/2005 15:28	3209.00	1.2	23.92	134
1736	90.9	2/17/2005 15:33	3214.00	1.2	28.92	111
1737	91.0	2/17/2005 15:38	3219.00	1.0	33.92	94.9
1738	91.1	2/17/2005 15:43	3224.00	0.9	38.92	82.8
1739	91.1	2/17/2005 15:48	3229.00	0.9	43.92	73.5
1740	91.1	2/17/2005 15:53	3234.00	1.0	48.92	66.1
1741	91.2	2/17/2005 15:58	3239.00	0.8	53.92	60.1
1742	91.2	2/17/2005 16:03	3244.00	0.8	58.92	55.1
1743	91.2	2/17/2005 16:08	3249.00	0.8	63.92	50.8
1744	91.2	2/17/2005 16:13	3254.00	0.8	68.92	47.2
1745	91.2	2/17/2005 16:18	3259.00	0.8	73.92	44.1
1746	91.3	2/17/2005 16:23	3264.00	0.7	78.92	41.4
1747	91.3	2/17/2005 16:28	3269.00	0.7	83.92	39.0
1748	91.3	2/17/2005 16:33	3274.00	0.7	88.92	36.8
1749	91.2	2/17/2005 16:38	3279.00	0.8	93.92	34.9
1750	91.3	2/17/2005 16:43	3284.00	0.7	98.92	33.2
1751	91.3	2/17/2005 16:48	3289.00	0.7	103.92	31.7
1752	91.3	2/17/2005 16:53	3294.00	0.7	108.92	30.2
1753	91.3	2/17/2005 16:58	3299.00	0.7	113.92	29.0
1754	91.3	2/17/2005 17:03	3304.00	0.7	118.92	27.8
1755	91.3	2/17/2005 17:08	3309.00	0.7	123.92	26.7
1756	91.4	2/17/2005 17:13	3314.00	0.6	128.92	25.7
1757	91.4	2/17/2005 17:18	3319.00	0.6	133.92	24.8
1758	91.4	2/17/2005 17:23	3324.00	0.6	138.92	23.9
1759	91.3	2/17/2005 17:28	3329.00	0.7	143.92	23.1
1760	91.4	2/17/2005 17:33	3334.00	0.6	148.92	22.4
1761	91.4	2/17/2005 17:38	3339.00	0.6	153.92	21.7
1762	91.4	2/17/2005 17:43	3344.00	0.6	158.92	21.0
1763	91.4	2/17/2005 17:48	3349.00	0.6	163.92	20.4
1764	91.4	2/17/2005 17:53	3354.00	0.6	168.92	19.9
1765	91.3	2/17/2005 17:58	3359.00	0.7	173.92	19.3
1766	91.3	2/17/2005 18:03	3364.00	0.7	178.92	18.8

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected	Date & Time, PV-4 Logger	Time Since Pumping Began	Barometrically Corrected Drawdown	Time Since Pumping Stopped	t/t'
	(ft)		(minutes)	(ft)	(minutes)	
1767	91.4	2/17/2005 18:08	3369.00	0.6	183.92	18.3
1768	91.5	2/17/2005 18:13	3374.00	0.5	188.92	17.9
1769	91.4	2/17/2005 18:18	3379.00	0.6	193.92	17.4
1770	91.4	2/17/2005 18:23	3384.00	0.6	198.92	17.0
1771	91.4	2/17/2005 18:28	3389.00	0.6	203.92	16.6
1772	91.4	2/17/2005 18:33	3394.00	0.6	208.92	16.2
1773	91.5	2/17/2005 18:38	3399.00	0.5	213.92	15.9
1774	91.5	2/17/2005 18:43	3404.00	0.5	218.92	15.5
1775	91.5	2/17/2005 18:48	3409.00	0.5	223.92	15.2
1776	91.5	2/17/2005 18:53	3414.00	0.5	228.92	14.9
1777	91.5	2/17/2005 18:58	3419.00	0.5	233.92	14.6
1778	91.5	2/17/2005 19:03	3424.00	0.5	238.92	14.3
1779	91.5	2/17/2005 19:08	3429.00	0.5	243.92	14.1
1780	91.5	2/17/2005 19:13	3434.00	0.5	248.92	13.8
1781	91.5	2/17/2005 19:18	3439.00	0.5	253.92	13.5
1782	91.5	2/17/2005 19:23	3444.00	0.5	258.92	13.3
1783	91.5	2/17/2005 19:28	3449.00	0.5	263.92	13.1
1784	91.5	2/17/2005 19:33	3454.00	0.5	268.92	12.8
1785	91.5	2/17/2005 19:38	3459.00	0.5	273.92	12.6
1786	91.5	2/17/2005 19:43	3464.00	0.5	278.92	12.4
1787	91.5	2/17/2005 19:48	3469.00	0.5	283.92	12.2
1788	91.5	2/17/2005 19:53	3474.00	0.5	288.92	12.0
1789	91.5	2/17/2005 19:58	3479.00	0.5	293.92	11.8
1790	91.5	2/17/2005 20:03	3484.00	0.5	298.92	11.7
1791	91.5	2/17/2005 20:08	3489.00	0.5	303.92	11.5
1792	91.5	2/17/2005 20:13	3494.00	0.5	308.92	11.3
1793	91.5	2/17/2005 20:18	3499.00	0.5	313.92	11.1
1794	91.6	2/17/2005 20:23	3504.00	0.5	318.92	11.0
1795	91.6	2/17/2005 20:28	3509.00	0.5	323.92	10.8
1796	91.6	2/17/2005 20:33	3514.00	0.5	328.92	10.7
1797	91.6	2/17/2005 20:38	3519.00	0.5	333.92	10.5
1798	91.6	2/17/2005 20:43	3524.00	0.5	338.92	10.4
1799	91.6	2/17/2005 20:48	3529.00	0.5	343.92	10.3
1800	91.6	2/17/2005 20:53	3534.00	0.5	348.92	10.1
1801	91.7	2/17/2005 20:58	3539.00	0.4	353.92	10.0
1802	91.7	2/17/2005 21:03	3544.00	0.4	358.92	9.9
1803	91.6	2/17/2005 21:08	3549.00	0.5	363.92	9.8
1804	91.6	2/17/2005 21:13	3554.00	0.5	368.92	9.6
1805	91.7	2/17/2005 21:18	3559.00	0.4	373.92	9.5
1806	91.6	2/17/2005 21:23	3564.00	0.4	378.92	9.4
1807	91.6	2/17/2005 21:28	3569.00	0.4	383.92	9.3
1808	91.6	2/17/2005 21:33	3574.00	0.4	388.92	9.2
1809	91.6	2/17/2005 21:38	3579.00	0.5	393.92	9.1
1810	91.7	2/17/2005 21:43	3584.00	0.4	398.92	9.0
1811	91.6	2/17/2005 21:48	3589.00	0.5	403.92	8.9
1812	91.6	2/17/2005 21:53	3594.00	0.5	408.92	8.8
1813	91.6	2/17/2005 21:58	3599.00	0.5	413.92	8.7
1814	91.6	2/17/2005 22:03	3604.00	0.5	418.92	8.6
1815	91.6	2/17/2005 22:08	3609.00	0.5	423.92	8.5
1816	91.7	2/17/2005 22:13	3614.00	0.4	428.92	8.4
1817	91.7	2/17/2005 22:18	3619.00	0.4	433.92	8.3

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1818	91.6	2/17/2005 22:23	3624.00	0.5	438.92	8.3
1819	91.7	2/17/2005 22:28	3629.00	0.4	443.92	8.2
1820	91.6	2/17/2005 22:33	3634.00	0.5	448.92	8.1
1821	91.6	2/17/2005 22:38	3639.00	0.5	453.92	8.0
1822	91.7	2/17/2005 22:43	3644.00	0.4	458.92	7.9
1823	91.7	2/17/2005 22:48	3649.00	0.4	463.92	7.9
1824	91.7	2/17/2005 22:53	3654.00	0.4	468.92	7.8
1825	91.7	2/17/2005 22:58	3659.00	0.4	473.92	7.7
1826	91.6	2/17/2005 23:03	3664.00	0.5	478.92	7.7
1827	91.7	2/17/2005 23:08	3669.00	0.4	483.92	7.6
1828	91.6	2/17/2005 23:13	3674.00	0.5	488.92	7.5
1829	91.6	2/17/2005 23:18	3679.00	0.5	493.92	7.4
1830	91.6	2/17/2005 23:23	3684.00	0.5	498.92	7.4
1831	91.6	2/17/2005 23:28	3689.00	0.5	503.92	7.3
1832	91.6	2/17/2005 23:33	3694.00	0.5	508.92	7.3
1833	91.7	2/17/2005 23:38	3699.00	0.4	513.92	7.2
1834	91.6	2/17/2005 23:43	3704.00	0.5	518.92	7.1
1835	91.6	2/17/2005 23:48	3709.00	0.5	523.92	7.1
1836	91.6	2/17/2005 23:53	3714.00	0.5	528.92	7.0
1837	91.6	2/17/2005 23:58	3719.00	0.5	533.92	7.0
1838	91.7	2/18/2005 0:03	3724.00	0.4	538.92	6.9
1839	91.7	2/18/2005 0:08	3729.00	0.4	543.92	6.9
1840	91.7	2/18/2005 0:13	3734.00	0.4	548.92	6.8
1841	91.7	2/18/2005 0:18	3739.00	0.4	553.92	6.8
1842	91.6	2/18/2005 0:23	3744.00	0.5	558.92	6.7
1843	91.7	2/18/2005 0:28	3749.00	0.4	563.92	6.6
1844	91.7	2/18/2005 0:33	3754.00	0.4	568.92	6.6
1845	91.7	2/18/2005 0:38	3759.00	0.4	573.92	6.5
1846	91.7	2/18/2005 0:43	3764.00	0.4	578.92	6.5
1847	91.6	2/18/2005 0:48	3769.00	0.5	583.92	6.5
1848	91.7	2/18/2005 0:53	3774.00	0.4	588.92	6.4
1849	91.7	2/18/2005 0:58	3779.00	0.4	593.92	6.4
1850	91.7	2/18/2005 1:03	3784.00	0.4	598.92	6.3
1851	91.7	2/18/2005 1:08	3789.00	0.4	603.92	6.3
1852	91.7	2/18/2005 1:13	3794.00	0.4	608.92	6.2
1853	91.7	2/18/2005 1:18	3799.00	0.4	613.92	6.2
1854	91.7	2/18/2005 1:23	3804.00	0.4	618.92	6.1
1855	91.7	2/18/2005 1:28	3809.00	0.4	623.92	6.1
1856	91.7	2/18/2005 1:33	3814.00	0.4	628.92	6.1
1857	91.7	2/18/2005 1:38	3819.00	0.4	633.92	6.0
1858	91.7	2/18/2005 1:43	3824.00	0.4	638.92	6.0
1859	91.7	2/18/2005 1:48	3829.00	0.4	643.92	5.9
1860	91.7	2/18/2005 1:53	3834.00	0.4	648.92	5.9
1861	91.7	2/18/2005 1:58	3839.00	0.4	653.92	5.9
1862	91.7	2/18/2005 2:03	3844.00	0.4	658.92	5.8
1863	91.7	2/18/2005 2:08	3849.00	0.4	663.92	5.8
1864	91.8	2/18/2005 2:13	3854.00	0.3	668.92	5.8
1865	91.7	2/18/2005 2:18	3859.00	0.4	673.92	5.7
1866	91.7	2/18/2005 2:23	3864.00	0.4	678.92	5.7
1867	91.7	2/18/2005 2:28	3869.00	0.4	683.92	5.7
1868	91.7	2/18/2005 2:33	3874.00	0.4	688.92	5.6

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)		
							t/t'
1869	91.8	2/18/2005 2:38	3879.00	0.3	693.92	5.6	
1870	91.8	2/18/2005 2:43	3884.00	0.3	698.92	5.6	
1871	91.7	2/18/2005 2:48	3889.00	0.4	703.92	5.5	
1872	91.8	2/18/2005 2:53	3894.00	0.3	708.92	5.5	
1873	91.8	2/18/2005 2:58	3899.00	0.3	713.92	5.5	
1874	91.7	2/18/2005 3:03	3904.00	0.4	718.92	5.4	
1875	91.8	2/18/2005 3:08	3909.00	0.3	723.92	5.4	
1876	91.7	2/18/2005 3:13	3914.00	0.4	728.92	5.4	
1877	91.8	2/18/2005 3:18	3919.00	0.3	733.92	5.3	
1878	91.7	2/18/2005 3:23	3924.00	0.4	738.92	5.3	
1879	91.8	2/18/2005 3:28	3929.00	0.3	743.92	5.3	
1880	91.8	2/18/2005 3:33	3934.00	0.3	748.92	5.3	
1881	91.8	2/18/2005 3:38	3939.00	0.3	753.92	5.2	
1882	91.8	2/18/2005 3:43	3944.00	0.3	758.92	5.2	
1883	91.8	2/18/2005 3:48	3949.00	0.3	763.92	5.2	
1884	91.7	2/18/2005 3:53	3954.00	0.3	768.92	5.1	
1885	91.8	2/18/2005 3:58	3959.00	0.2	773.92	5.1	
1886	91.8	2/18/2005 4:03	3964.00	0.2	778.92	5.1	
1887	91.7	2/18/2005 4:08	3969.00	0.3	783.92	5.1	
1888	91.7	2/18/2005 4:13	3974.00	0.3	788.92	5.0	
1889	91.7	2/18/2005 4:18	3979.00	0.3	793.92	5.0	
1890	91.7	2/18/2005 4:23	3984.00	0.3	798.92	5.0	
1891	91.7	2/18/2005 4:28	3989.00	0.3	803.92	5.0	
1892	91.7	2/18/2005 4:33	3994.00	0.3	808.92	4.9	
1893	91.7	2/18/2005 4:38	3999.00	0.3	813.92	4.9	
1894	91.7	2/18/2005 4:43	4004.00	0.3	818.92	4.9	
1895	91.8	2/18/2005 4:48	4009.00	0.2	823.92	4.9	
1896	91.8	2/18/2005 4:53	4014.00	0.2	828.92	4.8	
1897	91.8	2/18/2005 4:58	4019.00	0.2	833.92	4.8	
1898	91.8	2/18/2005 5:03	4024.00	0.2	838.92	4.8	
1899	91.7	2/18/2005 5:08	4029.00	0.3	843.92	4.8	
1900	91.7	2/18/2005 5:13	4034.00	0.3	848.92	4.8	
1901	91.8	2/18/2005 5:18	4039.00	0.2	853.92	4.7	
1902	91.7	2/18/2005 5:23	4044.00	0.3	858.92	4.7	
1903	91.8	2/18/2005 5:28	4049.00	0.2	863.92	4.7	
1904	91.8	2/18/2005 5:33	4054.00	0.2	868.92	4.7	
1905	91.7	2/18/2005 5:38	4059.00	0.3	873.92	4.6	
1906	91.8	2/18/2005 5:43	4064.00	0.2	878.92	4.6	
1907	91.7	2/18/2005 5:48	4069.00	0.3	883.92	4.6	
1908	91.8	2/18/2005 5:53	4074.00	0.2	888.92	4.6	
1909	91.8	2/18/2005 5:58	4079.00	0.2	893.92	4.6	
1910	91.9	2/18/2005 6:03	4084.00	0.1	898.92	4.5	
1911	91.8	2/18/2005 6:08	4089.00	0.2	903.92	4.5	
1912	91.8	2/18/2005 6:13	4094.00	0.2	908.92	4.5	
1913	91.8	2/18/2005 6:18	4099.00	0.2	913.92	4.5	
1914	91.8	2/18/2005 6:23	4104.00	0.3	918.92	4.5	
1915	91.8	2/18/2005 6:28	4109.00	0.3	923.92	4.4	
1916	91.8	2/18/2005 6:33	4114.00	0.3	928.92	4.4	
1917	91.8	2/18/2005 6:38	4119.00	0.2	933.92	4.4	

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1918	91.8	2/18/2005 6:43	4124.00	0.2	938.92	4.4
1919	91.9	2/18/2005 6:48	4129.00	0.1	943.92	4.4
1920	91.9	2/18/2005 6:53	4134.00	0.2	948.92	4.4
1921	91.9	2/18/2005 6:58	4139.00	0.2	953.92	4.3
1922	91.9	2/18/2005 7:03	4144.00	0.2	958.92	4.3
1923	92.0	2/18/2005 7:08	4149.00	0.1	963.92	4.3
1924	91.9	2/18/2005 7:13	4154.00	0.2	968.92	4.3
1925	91.9	2/18/2005 7:18	4159.00	0.2	973.92	4.3
1926	92.0	2/18/2005 7:23	4164.00	0.1	978.92	4.3
1927	92.0	2/18/2005 7:28	4169.00	0.1	983.92	4.2
1928	92.0	2/18/2005 7:33	4174.00	0.1	988.92	4.2
1929	92.0	2/18/2005 7:38	4179.00	0.1	993.92	4.2
1930	91.9	2/18/2005 7:43	4184.00	0.2	998.92	4.2
1931	91.9	2/18/2005 7:48	4189.00	0.2	1003.92	4.2
1932	91.9	2/18/2005 7:53	4194.00	0.2	1008.92	4.2
1933	92.0	2/18/2005 7:58	4199.00	0.1	1013.92	4.1
1934	91.9	2/18/2005 8:03	4204.00	0.2	1018.92	4.1
1935	92.0	2/18/2005 8:08	4209.00	0.1	1023.92	4.1
1936	91.9	2/18/2005 8:13	4214.00	0.2	1028.92	4.1
1937	92.0	2/18/2005 8:18	4219.00	0.1	1033.92	4.1
1938	91.9	2/18/2005 8:23	4224.00	0.2	1038.92	4.1
1939	91.9	2/18/2005 8:28	4229.00	0.2	1043.92	4.1
1940	92.0	2/18/2005 8:33	4234.00	0.1	1048.92	4.0
1941	91.9	2/18/2005 8:38	4239.00	0.2	1053.92	4.0
1942	91.9	2/18/2005 8:43	4244.00	0.2	1058.92	4.0
1943	92.0	2/18/2005 8:48	4249.00	0.1	1063.92	4.0
1944	91.9	2/18/2005 8:53	4254.00	0.1	1068.92	4.0
1945	91.9	2/18/2005 8:58	4259.00	0.1	1073.92	4.0
1946	91.9	2/18/2005 9:03	4264.00	0.1	1078.92	4.0
1947	92.0	2/18/2005 9:08	4269.00	0.1	1083.92	3.9
1948	92.0	2/18/2005 9:13	4274.00	0.1	1088.92	3.9
1949	92.0	2/18/2005 9:18	4279.00	0.1	1093.92	3.9
1950	91.9	2/18/2005 9:23	4284.00	0.2	1098.92	3.9
1951	92.0	2/18/2005 9:28	4289.00	0.1	1103.92	3.9
1952	92.0	2/18/2005 9:33	4294.00	0.1	1108.92	3.9
1953	91.9	2/18/2005 9:38	4299.00	0.1	1113.92	3.9
1954	91.9	2/18/2005 9:43	4304.00	0.1	1118.92	3.8
1955	91.9	2/18/2005 9:48	4309.00	0.1	1123.92	3.8
1956	92.0	2/18/2005 9:53	4314.00	0.1	1128.92	3.8
1957	92.0	2/18/2005 9:58	4319.00	0.1	1133.92	3.8
1958	92.0	2/18/2005 10:03	4324.00	0.1	1138.92	3.8
1959	91.9	2/18/2005 10:08	4329.00	0.1	1143.92	3.8
1960	91.9	2/18/2005 10:13	4334.00	0.1	1148.92	3.8
1961	91.9	2/18/2005 10:18	4339.00	0.1	1153.92	3.8
1962	91.9	2/18/2005 10:23	4344.00	0.1	1158.92	3.7
1963	91.9	2/18/2005 10:28	4349.00	0.1	1163.92	3.7
1964	91.9	2/18/2005 10:33	4354.00	0.1	1168.92	3.7
1965	91.9	2/18/2005 10:38	4359.00	0.1	1173.92	3.7
1966	91.9	2/18/2005 10:43	4364.00	0.1	1178.92	3.7
1967	91.9	2/18/2005 10:48	4369.00	0.1	1183.92	3.7
1968	91.9	2/18/2005 10:53	4374.00	0.1	1188.92	3.7

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
1969	91.9	2/18/2005 10:58	4379.00	0.1	1193.92	3.7
1970	91.9	2/18/2005 11:03	4384.00	0.1	1198.92	3.7
1971	91.8	2/18/2005 11:08	4389.00	0.2	1203.92	3.6
1972	91.9	2/18/2005 11:13	4394.00	0.1	1208.92	3.6
1973	91.9	2/18/2005 11:18	4399.00	0.1	1213.92	3.6
1974	91.9	2/18/2005 11:23	4404.00	0.1	1218.92	3.6
1975	92.0	2/18/2005 11:28	4409.00	0.0	1223.92	3.6
1976	91.9	2/18/2005 11:33	4414.00	0.1	1228.92	3.6
1977	91.9	2/18/2005 11:38	4419.00	0.1	1233.92	3.6
1978	91.9	2/18/2005 11:43	4424.00	0.1	1238.92	3.6
1979	91.9	2/18/2005 11:48	4429.00	0.1	1243.92	3.6
1980	91.9	2/18/2005 11:53	4434.00	0.1	1248.92	3.6
1981	91.9	2/18/2005 11:58	4439.00	0.1	1253.92	3.5
1982	91.9	2/18/2005 12:03	4444.00	0.1	1258.92	3.5
1983	91.9	2/18/2005 12:08	4449.00	0.1	1263.92	3.5
1984	91.9	2/18/2005 12:13	4454.00	0.1	1268.92	3.5
1985	92.0	2/18/2005 12:18	4459.00	0.0	1273.92	3.5
1986	91.9	2/18/2005 12:23	4464.00	0.1	1278.92	3.5
1987	91.9	2/18/2005 12:28	4469.00	0.1	1283.92	3.5
1988	91.9	2/18/2005 12:33	4474.00	0.1	1288.92	3.5
1989	91.9	2/18/2005 12:38	4479.00	0.1	1293.92	3.5
1990	91.9	2/18/2005 12:43	4484.00	0.1	1298.92	3.5
1991	91.9	2/18/2005 12:48	4489.00	0.1	1303.92	3.4
1992	92.0	2/18/2005 12:53	4494.00	0.1	1308.92	3.4
1993	92.0	2/18/2005 12:58	4499.00	0.1	1313.92	3.4
1994	92.0	2/18/2005 13:03	4504.00	0.1	1318.92	3.4
1995	92.0	2/18/2005 13:08	4509.00	0.1	1323.92	3.4
1996	92.0	2/18/2005 13:13	4514.00	0.1	1328.92	3.4
1997	92.0	2/18/2005 13:18	4519.00	0.1	1333.92	3.4
1998	92.0	2/18/2005 13:23	4524.00	0.1	1338.92	3.4
1999	92.0	2/18/2005 13:28	4529.00	0.1	1343.92	3.4
2000	92.0	2/18/2005 13:33	4534.00	0.1	1348.92	3.4
2001	92.0	2/18/2005 13:38	4539.00	0.1	1353.92	3.4
2002	92.1	2/18/2005 13:43	4544.00	0.0	1358.92	3.3
2003	92.0	2/18/2005 13:48	4549.00	0.1	1363.92	3.3
2004	92.0	2/18/2005 13:53	4554.00	0.1	1368.92	3.3
2005	92.0	2/18/2005 13:58	4559.00	0.1	1373.92	3.3
2006	92.0	2/18/2005 14:03	4564.00	0.1	1378.92	3.3
2007	92.1	2/18/2005 14:08	4569.00	0.0	1383.92	3.3
2008	92.0	2/18/2005 14:13	4574.00	0.1	1388.92	3.3
2009	92.0	2/18/2005 14:18	4579.00	0.1	1393.92	3.3
2010	92.1	2/18/2005 14:23	4584.00	0.0	1398.92	3.3
2011	92.0	2/18/2005 14:28	4589.00	0.1	1403.92	3.3
2012	92.0	2/18/2005 14:33	4594.00	0.1	1408.92	3.3
2013	92.1	2/18/2005 14:38	4599.00	0.0	1413.92	3.3
2014	92.1	2/18/2005 14:43	4604.00	0.0	1418.92	3.2
2015	92.1	2/18/2005 14:48	4609.00	0.0	1423.92	3.2
2016	92.1	2/18/2005 14:53	4614.00	0.0	1428.92	3.2
2017	92.0	2/18/2005 14:58	4619.00	0.1	1433.92	3.2
2018	92.1	2/18/2005 15:03	4624.00	0.0	1438.92	3.2
2019	92.0	2/18/2005 15:08	4629.00	0.1	1443.92	3.2

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2020	92.0	2/18/2005 15:13	4634.00	0.1	1448.92	3.2
2021	92.0	2/18/2005 15:18	4639.00	0.1	1453.92	3.2
2022	92.1	2/18/2005 15:23	4644.00	0.0	1458.92	3.2
2023	92.1	2/18/2005 15:28	4649.00	0.0	1463.92	3.2
2024	92.1	2/18/2005 15:33	4654.00	0.0	1468.92	3.2
2025	92.1	2/18/2005 15:38	4659.00	0.0	1473.92	3.2
2026	92.1	2/18/2005 15:43	4664.00	0.0	1478.92	3.2
2027	92.1	2/18/2005 15:48	4669.00	0.0	1483.92	3.1
2028	92.1	2/18/2005 15:53	4674.00	0.0	1488.92	3.1
2029	92.1	2/18/2005 15:58	4679.00	0.0	1493.92	3.1
2030	92.1	2/18/2005 16:03	4684.00	0.0	1498.92	3.1
2031	92.1	2/18/2005 16:08	4689.00	0.0	1503.92	3.1
2032	92.1	2/18/2005 16:13	4694.00	0.0	1508.92	3.1
2033	92.1	2/18/2005 16:18	4699.00	0.0	1513.92	3.1
2034	92.1	2/18/2005 16:23	4704.00	0.0	1518.92	3.1
2035	92.1	2/18/2005 16:28	4709.00	0.0	1523.92	3.1
2036	92.1	2/18/2005 16:33	4714.00	0.0	1528.92	3.1
2037	92.1	2/18/2005 16:38	4719.00	0.0	1533.92	3.1
2038	92.1	2/18/2005 16:43	4724.00	0.0	1538.92	3.1
2039	92.1	2/18/2005 16:48	4729.00	0.0	1543.92	3.1
2040	92.1	2/18/2005 16:53	4734.00	0.0	1548.92	3.1
2041	92.1	2/18/2005 16:58	4739.00	0.0	1553.92	3.0
2042	92.1	2/18/2005 17:03	4744.00	0.0	1558.92	3.0
2043	92.1	2/18/2005 17:08	4749.00	0.0	1563.92	3.0
2044	92.1	2/18/2005 17:13	4754.00	0.0	1568.92	3.0
2045	92.1	2/18/2005 17:18	4759.00	0.0	1573.92	3.0
2046	92.1	2/18/2005 17:23	4764.00	0.0	1578.92	3.0
2047	92.2	2/18/2005 17:28	4769.00	-0.1	1583.92	3.0
2048	92.1	2/18/2005 17:33	4774.00	0.0	1588.92	3.0
2049	92.1	2/18/2005 17:38	4779.00	0.0	1593.92	3.0
2050	92.1	2/18/2005 17:43	4784.00	0.0	1598.92	3.0
2051	92.1	2/18/2005 17:48	4789.00	0.0	1603.92	3.0
2052	92.1	2/18/2005 17:53	4794.00	0.0	1608.92	3.0
2053	92.2	2/18/2005 17:58	4799.00	-0.1	1613.92	3.0
2054	92.1	2/18/2005 18:03	4804.00	0.0	1618.92	3.0
2055	92.2	2/18/2005 18:08	4809.00	-0.1	1623.92	3.0
2056	92.1	2/18/2005 18:13	4814.00	0.0	1628.92	3.0
2057	92.2	2/18/2005 18:18	4819.00	-0.1	1633.92	2.9
2058	92.2	2/18/2005 18:23	4824.00	-0.1	1638.92	2.9
2059	92.1	2/18/2005 18:28	4829.00	0.0	1643.92	2.9
2060	92.1	2/18/2005 18:33	4834.00	0.0	1648.92	2.9
2061	92.2	2/18/2005 18:38	4839.00	-0.1	1653.92	2.9
2062	92.2	2/18/2005 18:43	4844.00	-0.1	1658.92	2.9
2063	92.1	2/18/2005 18:48	4849.00	0.0	1663.92	2.9
2064	92.2	2/18/2005 18:53	4854.00	-0.1	1668.92	2.9
2065	92.1	2/18/2005 18:58	4859.00	0.0	1673.92	2.9
2066	92.2	2/18/2005 19:03	4864.00	-0.1	1678.92	2.9
2067	92.1	2/18/2005 19:08	4869.00	0.0	1683.92	2.9
2068	92.2	2/18/2005 19:13	4874.00	-0.1	1688.92	2.9
2069	92.2	2/18/2005 19:18	4879.00	-0.1	1693.92	2.9
2070	92.2	2/18/2005 19:23	4884.00	-0.1	1698.92	2.9

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2071	92.2	2/18/2005 19:28	4889.00	-0.1	1703.92	2.9
2072	92.2	2/18/2005 19:33	4894.00	-0.1	1708.92	2.9
2073	92.1	2/18/2005 19:38	4899.00	-0.1	1713.92	2.9
2074	92.0	2/18/2005 19:43	4904.00	0.0	1718.92	2.9
2075	92.1	2/18/2005 19:48	4909.00	-0.1	1723.92	2.8
2076	92.1	2/18/2005 19:53	4914.00	0.0	1728.92	2.8
2077	92.2	2/18/2005 19:58	4919.00	-0.1	1733.92	2.8
2078	92.1	2/18/2005 20:03	4924.00	0.0	1738.92	2.8
2079	92.1	2/18/2005 20:08	4929.00	0.0	1743.92	2.8
2080	92.2	2/18/2005 20:13	4934.00	-0.1	1748.92	2.8
2081	92.2	2/18/2005 20:18	4939.00	-0.1	1753.92	2.8
2082	92.1	2/18/2005 20:23	4944.00	-0.1	1758.92	2.8
2083	92.0	2/18/2005 20:28	4949.00	0.0	1763.92	2.8
2084	92.1	2/18/2005 20:33	4954.00	-0.1	1768.92	2.8
2085	92.1	2/18/2005 20:38	4959.00	-0.1	1773.92	2.8
2086	92.1	2/18/2005 20:43	4964.00	-0.1	1778.92	2.8
2087	92.1	2/18/2005 20:48	4969.00	-0.1	1783.92	2.8
2088	92.1	2/18/2005 20:53	4974.00	-0.1	1788.92	2.8
2089	92.1	2/18/2005 20:58	4979.00	-0.1	1793.92	2.8
2090	92.1	2/18/2005 21:03	4984.00	-0.1	1798.92	2.8
2091	92.1	2/18/2005 21:08	4989.00	-0.1	1803.92	2.8
2092	92.1	2/18/2005 21:13	4994.00	-0.1	1808.92	2.8
2093	92.2	2/18/2005 21:18	4999.00	-0.2	1813.92	2.8
2094	92.1	2/18/2005 21:23	5004.00	-0.1	1818.92	2.8
2095	92.2	2/18/2005 21:28	5009.00	-0.2	1823.92	2.7
2096	92.2	2/18/2005 21:33	5014.00	-0.2	1828.92	2.7
2097	92.2	2/18/2005 21:38	5019.00	-0.1	1833.92	2.7
2098	92.2	2/18/2005 21:43	5024.00	-0.1	1838.92	2.7
2099	92.2	2/18/2005 21:48	5029.00	-0.1	1843.92	2.7
2100	92.2	2/18/2005 21:53	5034.00	-0.1	1848.92	2.7
2101	92.2	2/18/2005 21:58	5039.00	-0.1	1853.92	2.7
2102	92.3	2/18/2005 22:03	5044.00	-0.2	1858.92	2.7
2103	92.1	2/18/2005 22:08	5049.00	-0.1	1863.92	2.7
2104	92.1	2/18/2005 22:13	5054.00	-0.1	1868.92	2.7
2105	92.1	2/18/2005 22:18	5059.00	-0.1	1873.92	2.7
2106	92.1	2/18/2005 22:23	5064.00	-0.1	1878.92	2.7
2107	92.1	2/18/2005 22:28	5069.00	-0.1	1883.92	2.7
2108	92.2	2/18/2005 22:33	5074.00	-0.2	1888.92	2.7
2109	92.2	2/18/2005 22:38	5079.00	-0.1	1893.92	2.7
2110	92.2	2/18/2005 22:43	5084.00	-0.1	1898.92	2.7
2111	92.2	2/18/2005 22:48	5089.00	-0.1	1903.92	2.7
2112	92.1	2/18/2005 22:53	5094.00	-0.1	1908.92	2.7
2113	92.1	2/18/2005 22:58	5099.00	-0.1	1913.92	2.7
2114	92.1	2/18/2005 23:03	5104.00	-0.1	1918.92	2.7
2115	92.1	2/18/2005 23:08	5109.00	-0.1	1923.92	2.7
2116	92.2	2/18/2005 23:13	5114.00	-0.2	1928.92	2.7
2117	92.1	2/18/2005 23:18	5119.00	-0.1	1933.92	2.6
2118	92.1	2/18/2005 23:23	5124.00	0.0	1938.92	2.6
2119	92.2	2/18/2005 23:28	5129.00	-0.1	1943.92	2.6
2120	92.2	2/18/2005 23:33	5134.00	-0.1	1948.92	2.6
2121	92.3	2/18/2005 23:38	5139.00	-0.2	1953.92	2.6

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2122	92.2	2/18/2005 23:43	5144.00	-0.1	1958.92	2.6
2123	92.2	2/18/2005 23:48	5149.00	-0.1	1963.92	2.6
2124	92.2	2/18/2005 23:53	5154.00	-0.1	1968.92	2.6
2125	92.3	2/18/2005 23:58	5159.00	-0.2	1973.92	2.6
2126	92.2	2/19/2005 0:03	5164.00	-0.1	1978.92	2.6
2127	92.3	2/19/2005 0:08	5169.00	-0.2	1983.92	2.6
2128	92.3	2/19/2005 0:13	5174.00	-0.2	1988.92	2.6
2129	92.2	2/19/2005 0:18	5179.00	-0.1	1993.92	2.6
2130	92.3	2/19/2005 0:23	5184.00	-0.2	1998.92	2.6
2131	92.3	2/19/2005 0:28	5189.00	-0.2	2003.92	2.6
2132	92.2	2/19/2005 0:33	5194.00	-0.1	2008.92	2.6
2133	92.3	2/19/2005 0:38	5199.00	-0.2	2013.92	2.6
2134	92.2	2/19/2005 0:43	5204.00	-0.1	2018.92	2.6
2135	92.3	2/19/2005 0:48	5209.00	-0.2	2023.92	2.6
2136	92.3	2/19/2005 0:53	5214.00	-0.2	2028.92	2.6
2137	92.3	2/19/2005 0:58	5219.00	-0.2	2033.92	2.6
2138	92.2	2/19/2005 1:03	5224.00	-0.1	2038.92	2.6
2139	92.3	2/19/2005 1:08	5229.00	-0.2	2043.92	2.6
2140	92.3	2/19/2005 1:13	5234.00	-0.2	2048.92	2.6
2141	92.1	2/19/2005 1:18	5239.00	.0.0	2053.92	2.6
2142	92.3	2/19/2005 1:23	5244.00	-0.2	2058.92	2.5
2143	92.3	2/19/2005 1:28	5249.00	-0.2	2063.92	2.5
2144	92.3	2/19/2005 1:33	5254.00	-0.2	2068.92	2.5
2145	92.3	2/19/2005 1:38	5259.00	-0.2	2073.92	2.5
2146	92.2	2/19/2005 1:43	5264.00	-0.1	2078.92	2.5
2147	92.3	2/19/2005 1:48	5269.00	-0.2	2083.92	2.5
2148	92.3	2/19/2005 1:53	5274.00	-0.2	2088.92	2.5
2149	92.3	2/19/2005 1:58	5279.00	-0.2	2093.92	2.5
2150	92.3	2/19/2005 2:03	5284.00	-0.2	2098.92	2.5
2151	92.3	2/19/2005 2:08	5289.00	-0.2	2103.92	2.5
2152	92.2	2/19/2005 2:13	5294.00	-0.1	2108.92	2.5
2153	92.2	2/19/2005 2:18	5299.00	-0.1	2113.92	2.5
2154	92.3	2/19/2005 2:23	5304.00	-0.2	2118.92	2.5
2155	92.3	2/19/2005 2:28	5309.00	-0.2	2123.92	2.5
2156	92.2	2/19/2005 2:33	5314.00	-0.1	2128.92	2.5
2157	92.2	2/19/2005 2:38	5319.00	-0.1	2133.92	2.5
2158	92.2	2/19/2005 2:43	5324.00	-0.1	2138.92	2.5
2159	92.3	2/19/2005 2:48	5329.00	-0.2	2143.92	2.5
2160	92.3	2/19/2005 2:53	5334.00	-0.2	2148.92	2.5
2161	92.2	2/19/2005 2:58	5339.00	-0.1	2153.92	2.5
2162	92.2	2/19/2005 3:03	5344.00	-0.1	2158.92	2.5
2163	92.2	2/19/2005 3:08	5349.00	-0.1	2163.92	2.5
2164	92.2	2/19/2005 3:13	5354.00	-0.1	2168.92	2.5
2165	92.2	2/19/2005 3:18	5359.00	-0.1	2173.92	2.5
2166	92.2	2/19/2005 3:23	5364.00	-0.1	2178.92	2.5
2167	92.2	2/19/2005 3:28	5369.00	-0.1	2183.92	2.5
2168	92.2	2/19/2005 3:33	5374.00	-0.1	2188.92	2.5
2169	92.3	2/19/2005 3:38	5379.00	-0.2	2193.92	2.5
2170	92.3	2/19/2005 3:43	5384.00	-0.2	2198.92	2.4
2171	92.2	2/19/2005 3:48	5389.00	-0.1	2203.92	2.4
2172	92.2	2/19/2005 3:53	5394.00	-0.1	2208.92	2.4

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2173	92.3	2/19/2005 3:58	5399.00	-0.3	2213.92	2.4
2174	92.2	2/19/2005 4:03	5404.00	-0.1	2218.92	2.4
2175	92.3	2/19/2005 4:08	5409.00	-0.2	2223.92	2.4
2176	92.3	2/19/2005 4:13	5414.00	-0.2	2228.92	2.4
2177	92.2	2/19/2005 4:18	5419.00	-0.1	2233.92	2.4
2178	92.3	2/19/2005 4:23	5424.00	-0.3	2238.92	2.4
2179	92.2	2/19/2005 4:28	5429.00	-0.1	2243.92	2.4
2180	92.3	2/19/2005 4:33	5434.00	-0.3	2248.92	2.4
2181	92.3	2/19/2005 4:38	5439.00	-0.2	2253.92	2.4
2182	92.3	2/19/2005 4:43	5444.00	-0.2	2258.92	2.4
2183	92.3	2/19/2005 4:48	5449.00	-0.2	2263.92	2.4
2184	92.2	2/19/2005 4:53	5454.00	-0.1	2268.92	2.4
2185	92.3	2/19/2005 4:58	5459.00	-0.3	2273.92	2.4
2186	92.3	2/19/2005 5:03	5464.00	-0.3	2278.92	2.4
2187	92.3	2/19/2005 5:08	5469.00	-0.2	2283.92	2.4
2188	92.2	2/19/2005 5:13	5474.00	-0.1	2288.92	2.4
2189	92.3	2/19/2005 5:18	5479.00	-0.2	2293.92	2.4
2190	92.3	2/19/2005 5:23	5484.00	-0.2	2298.92	2.4
2191	92.3	2/19/2005 5:28	5489.00	-0.2	2303.92	2.4
2192	92.3	2/19/2005 5:33	5494.00	-0.2	2308.92	2.4
2193	92.3	2/19/2005 5:38	5499.00	-0.2	2313.92	2.4
2194	92.2	2/19/2005 5:43	5504.00	-0.1	2318.92	2.4
2195	92.2	2/19/2005 5:48	5509.00	-0.1	2323.92	2.4
2196	92.3	2/19/2005 5:53	5514.00	-0.2	2328.92	2.4
2197	92.3	2/19/2005 5:58	5519.00	-0.2	2333.92	2.4
2198	92.3	2/19/2005 6:03	5524.00	-0.2	2338.92	2.4
2199	92.3	2/19/2005 6:08	5529.00	-0.2	2343.92	2.4
2200	92.3	2/19/2005 6:13	5534.00	-0.2	2348.92	2.4
2201	92.2	2/19/2005 6:18	5539.00	-0.1	2353.92	2.4
2202	92.3	2/19/2005 6:23	5544.00	-0.2	2358.92	2.4
2203	92.3	2/19/2005 6:28	5549.00	-0.2	2363.92	2.3
2204	92.3	2/19/2005 6:33	5554.00	-0.2	2368.92	2.3
2205	92.3	2/19/2005 6:38	5559.00	-0.2	2373.92	2.3
2206	92.3	2/19/2005 6:43	5564.00	-0.2	2378.92	2.3
2207	92.3	2/19/2005 6:48	5569.00	-0.2	2383.92	2.3
2208	92.3	2/19/2005 6:53	5574.00	-0.2	2388.92	2.3
2209	92.3	2/19/2005 6:58	5579.00	-0.2	2393.92	2.3
2210	92.3	2/19/2005 7:03	5584.00	-0.2	2398.92	2.3
2211	92.3	2/19/2005 7:08	5589.00	-0.2	2403.92	2.3
2212	92.3	2/19/2005 7:13	5594.00	-0.2	2408.92	2.3
2213	92.3	2/19/2005 7:18	5599.00	-0.2	2413.92	2.3
2214	92.3	2/19/2005 7:23	5604.00	-0.2	2418.92	2.3
2215	92.3	2/19/2005 7:28	5609.00	-0.2	2423.92	2.3
2216	92.3	2/19/2005 7:33	5614.00	-0.2	2428.92	2.3
2217	92.3	2/19/2005 7:38	5619.00	-0.2	2433.92	2.3
2218	92.3	2/19/2005 7:43	5624.00	-0.2	2438.92	2.3
2219	92.3	2/19/2005 7:48	5629.00	-0.2	2443.92	2.3
2220	92.3	2/19/2005 7:53	5634.00	-0.2	2448.92	2.3
2221	92.3	2/19/2005 7:58	5639.00	-0.2	2453.92	2.3
2222	92.3	2/19/2005 8:03	5644.00	-0.2	2458.92	2.3
2223	92.3	2/19/2005 8:08	5649.00	-0.2	2463.92	2.3

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2224	92.3	2/19/2005 8:13	5654.00	-0.2	2468.92	2.3
2225	92.3	2/19/2005 8:18	5659.00	-0.2	2473.92	2.3
2226	92.3	2/19/2005 8:23	5664.00	-0.2	2478.92	2.3
2227	92.3	2/19/2005 8:28	5669.00	-0.2	2483.92	2.3
2228	92.3	2/19/2005 8:33	5674.00	-0.2	2488.92	2.3
2229	92.3	2/19/2005 8:38	5679.00	-0.2	2493.92	2.3
2230	92.4	2/19/2005 8:43	5684.00	-0.3	2498.92	2.3
2231	92.3	2/19/2005 8:48	5689.00	-0.2	2503.92	2.3
2232	92.3	2/19/2005 8:53	5694.00	-0.2	2508.92	2.3
2233	92.3	2/19/2005 8:58	5699.00	-0.2	2513.92	2.3
2234	92.3	2/19/2005 9:03	5704.00	-0.2	2518.92	2.3
2235	92.2	2/19/2005 9:08	5709.00	-0.2	2523.92	2.3
2236	92.2	2/19/2005 9:13	5714.00	-0.2	2528.92	2.3
2237	92.2	2/19/2005 9:18	5719.00	-0.2	2533.92	2.3
2238	92.2	2/19/2005 9:23	5724.00	-0.2	2538.92	2.3
2239	92.2	2/19/2005 9:28	5729.00	-0.2	2543.92	2.3
2240	92.3	2/19/2005 9:33	5734.00	-0.3	2548.92	2.2
2241	92.2	2/19/2005 9:38	5739.00	-0.2	2553.92	2.2
2242	92.2	2/19/2005 9:43	5744.00	-0.2	2558.92	2.2
2243	92.2	2/19/2005 9:48	5749.00	-0.2	2563.92	2.2
2244	92.2	2/19/2005 9:53	5754.00	-0.2	2568.92	2.2
2245	92.2	2/19/2005 9:58	5759.00	-0.2	2573.92	2.2
2246	92.2	2/19/2005 10:03	5764.00	-0.2	2578.92	2.2
2247	92.2	2/19/2005 10:08	5769.00	-0.2	2583.92	2.2
2248	92.2	2/19/2005 10:13	5774.00	-0.2	2588.92	2.2
2249	92.3	2/19/2005 10:18	5779.00	-0.3	2593.92	2.2
2250	92.2	2/19/2005 10:23	5784.00	-0.1	2598.92	2.2
2251	92.2	2/19/2005 10:28	5789.00	-0.1	2603.92	2.2
2252	92.2	2/19/2005 10:33	5794.00	-0.1	2608.92	2.2
2253	92.2	2/19/2005 10:38	5799.00	-0.1	2613.92	2.2
2254	92.3	2/19/2005 10:43	5804.00	-0.2	2618.92	2.2
2255	92.2	2/19/2005 10:48	5809.00	-0.1	2623.92	2.2
2256	92.2	2/19/2005 10:53	5814.00	-0.1	2628.92	2.2
2257	92.2	2/19/2005 10:58	5819.00	-0.1	2633.92	2.2
2258	92.2	2/19/2005 11:03	5824.00	-0.1	2638.92	2.2
2259	92.2	2/19/2005 11:08	5829.00	-0.1	2643.92	2.2
2260	92.2	2/19/2005 11:13	5834.00	-0.1	2648.92	2.2
2261	92.2	2/19/2005 11:18	5839.00	-0.1	2653.92	2.2
2262	92.2	2/19/2005 11:23	5844.00	-0.1	2658.92	2.2
2263	92.2	2/19/2005 11:28	5849.00	-0.1	2663.92	2.2
2264	92.2	2/19/2005 11:33	5854.00	-0.1	2668.92	2.2
2265	92.2	2/19/2005 11:38	5859.00	-0.2	2673.92	2.2
2266	92.2	2/19/2005 11:43	5864.00	-0.2	2678.92	2.2
2267	92.2	2/19/2005 11:48	5869.00	-0.2	2683.92	2.2
2268	92.2	2/19/2005 11:53	5874.00	-0.2	2688.92	2.2
2269	92.2	2/19/2005 11:58	5879.00	-0.2	2693.92	2.2
2270	92.2	2/19/2005 12:03	5884.00	-0.2	2698.92	2.2
2271	92.2	2/19/2005 12:08	5889.00	-0.1	2703.92	2.2
2272	92.2	2/19/2005 12:13	5894.00	-0.1	2708.92	2.2
2273	92.2	2/19/2005 12:18	5899.00	-0.1	2713.92	2.2
2274	92.2	2/19/2005 12:23	5904.00	-0.1	2718.92	2.2

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2275	92.2	2/19/2005 12:28	5909.00	-0.1	2723.92	2.2
2276	92.2	2/19/2005 12:33	5914.00	-0.1	2728.92	2.2
2277	92.2	2/19/2005 12:38	5919.00	-0.2	2733.92	2.2
2278	92.2	2/19/2005 12:43	5924.00	-0.2	2738.92	2.2
2279	92.2	2/19/2005 12:48	5929.00	-0.2	2743.92	2.2
2280	92.2	2/19/2005 12:53	5934.00	-0.2	2748.92	2.2
2281	91.8	2/19/2005 12:58	5939.00	0.3	2753.92	2.2
2282	92.2	2/19/2005 13:03	5944.00	-0.2	2758.92	2.2
2283	92.2	2/19/2005 13:08	5949.00	-0.2	2763.92	2.2
2284	92.2	2/19/2005 13:13	5954.00	-0.2	2768.92	2.2
2285	92.2	2/19/2005 13:18	5959.00	-0.2	2773.92	2.1
2286	92.2	2/19/2005 13:23	5964.00	-0.2	2778.92	2.1
2287	92.2	2/19/2005 13:28	5969.00	-0.2	2783.92	2.1
2288	92.2	2/19/2005 13:33	5974.00	-0.2	2788.92	2.1
2289	92.2	2/19/2005 13:38	5979.00	-0.2	2793.92	2.1
2290	92.2	2/19/2005 13:43	5984.00	-0.2	2798.92	2.1
2291	92.2	2/19/2005 13:48	5989.00	-0.2	2803.92	2.1
2292	92.2	2/19/2005 13:53	5994.00	-0.2	2808.92	2.1
2293	92.2	2/19/2005 13:58	5999.00	-0.2	2813.92	2.1
2294	92.2	2/19/2005 14:03	6004.00	-0.2	2818.92	2.1
2295	92.2	2/19/2005 14:08	6009.00	-0.2	2823.92	2.1
2296	92.2	2/19/2005 14:13	6014.00	-0.2	2828.92	2.1
2297	92.2	2/19/2005 14:18	6019.00	-0.2	2833.92	2.1
2298	92.2	2/19/2005 14:23	6024.00	-0.2	2838.92	2.1
2299	92.2	2/19/2005 14:28	6029.00	-0.2	2843.92	2.1
2300	92.2	2/19/2005 14:33	6034.00	-0.2	2848.92	2.1
2301	92.2	2/19/2005 14:38	6039.00	-0.2	2853.92	2.1
2302	92.2	2/19/2005 14:43	6044.00	-0.2	2858.92	2.1
2303	92.2	2/19/2005 14:48	6049.00	-0.2	2863.92	2.1
2304	92.2	2/19/2005 14:53	6054.00	-0.2	2868.92	2.1
2305	92.2	2/19/2005 14:58	6059.00	-0.2	2873.92	2.1
2306	92.2	2/19/2005 15:03	6064.00	-0.2	2878.92	2.1
2307	92.2	2/19/2005 15:08	6069.00	-0.2	2883.92	2.1
2308	92.2	2/19/2005 15:13	6074.00	-0.2	2888.92	2.1
2309	92.2	2/19/2005 15:18	6079.00	-0.2	2893.92	2.1
2310	92.2	2/19/2005 15:23	6084.00	-0.2	2898.92	2.1
2311	92.2	2/19/2005 15:28	6089.00	-0.2	2903.92	2.1
2312	92.2	2/19/2005 15:33	6094.00	-0.2	2908.92	2.1
2313	92.2	2/19/2005 15:38	6099.00	-0.2	2913.92	2.1
2314	92.2	2/19/2005 15:43	6104.00	-0.2	2918.92	2.1
2315	92.2	2/19/2005 15:48	6109.00	-0.2	2923.92	2.1
2316	92.3	2/19/2005 15:53	6114.00	-0.3	2928.92	2.1
2317	92.2	2/19/2005 15:58	6119.00	-0.2	2933.92	2.1
2318	92.3	2/19/2005 16:03	6124.00	-0.3	2938.92	2.1
2319	92.2	2/19/2005 16:08	6129.00	-0.2	2943.92	2.1
2320	92.2	2/19/2005 16:13	6134.00	-0.2	2948.92	2.1
2321	92.2	2/19/2005 16:18	6139.00	-0.2	2953.92	2.1
2322	92.3	2/19/2005 16:23	6144.00	-0.3	2958.92	2.1
2323	92.2	2/19/2005 16:28	6149.00	-0.2	2963.92	2.1
2324	92.2	2/19/2005 16:33	6154.00	-0.2	2968.92	2.1
2325	92.3	2/19/2005 16:38	6159.00	-0.3	2973.92	2.1

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2326	92.2	2/19/2005 16:43	6164.00	-0.2	2978.92	2.1
2327	92.2	2/19/2005 16:48	6169.00	-0.2	2983.92	2.1
2328	92.3	2/19/2005 16:53	6174.00	-0.3	2988.92	2.1
2329	92.2	2/19/2005 16:58	6179.00	-0.2	2993.92	2.1
2330	92.2	2/19/2005 17:03	6184.00	-0.2	2998.92	2.1
2331	92.3	2/19/2005 17:08	6189.00	-0.3	3003.92	2.1
2332	92.2	2/19/2005 17:13	6194.00	-0.2	3008.92	2.1
2333	92.3	2/19/2005 17:18	6199.00	-0.3	3013.92	2.1
2334	92.3	2/19/2005 17:23	6204.00	-0.3	3018.92	2.1
2335	92.3	2/19/2005 17:28	6209.00	-0.3	3023.92	2.1
2336	92.3	2/19/2005 17:33	6214.00	-0.3	3028.92	2.1
2337	92.3	2/19/2005 17:38	6219.00	-0.2	3033.92	2.0
2338	92.2	2/19/2005 17:43	6224.00	-0.1	3038.92	2.0
2339	92.2	2/19/2005 17:48	6229.00	-0.1	3043.92	2.0
2340	92.2	2/19/2005 17:53	6234.00	-0.1	3048.92	2.0
2341	92.3	2/19/2005 17:58	6239.00	-0.2	3053.92	2.0
2342	92.3	2/19/2005 18:03	6244.00	-0.2	3058.92	2.0
2343	92.2	2/19/2005 18:08	6249.00	-0.1	3063.92	2.0
2344	92.2	2/19/2005 18:13	6254.00	-0.1	3068.92	2.0
2345	92.3	2/19/2005 18:18	6259.00	-0.2	3073.92	2.0
2346	92.3	2/19/2005 18:23	6264.00	-0.2	3078.92	2.0
2347	92.3	2/19/2005 18:28	6269.00	-0.2	3083.92	2.0
2348	92.3	2/19/2005 18:33	6274.00	-0.2	3088.92	2.0
2349	92.3	2/19/2005 18:38	6279.00	-0.2	3093.92	2.0
2350	92.3	2/19/2005 18:43	6284.00	-0.2	3098.92	2.0
2351	92.2	2/19/2005 18:48	6289.00	-0.1	3103.92	2.0
2352	92.3	2/19/2005 18:53	6294.00	-0.2	3108.92	2.0
2353	92.3	2/19/2005 18:58	6299.00	-0.2	3113.92	2.0
2354	92.3	2/19/2005 19:03	6304.00	-0.2	3118.92	2.0
2355	92.2	2/19/2005 19:08	6309.00	-0.1	3123.92	2.0
2356	92.3	2/19/2005 19:13	6314.00	-0.2	3128.92	2.0
2357	92.3	2/19/2005 19:18	6319.00	-0.2	3133.92	2.0
2358	92.3	2/19/2005 19:23	6324.00	-0.2	3138.92	2.0
2359	92.3	2/19/2005 19:28	6329.00	-0.2	3143.92	2.0
2360	92.3	2/19/2005 19:33	6334.00	-0.2	3148.92	2.0
2361	92.3	2/19/2005 19:38	6339.00	-0.2	3153.92	2.0
2362	92.4	2/19/2005 19:43	6344.00	-0.3	3158.92	2.0
2363	92.3	2/19/2005 19:48	6349.00	-0.2	3163.92	2.0
2364	92.3	2/19/2005 19:53	6354.00	-0.2	3168.92	2.0
2365	92.3	2/19/2005 19:58	6359.00	-0.2	3173.92	2.0
2366	92.3	2/19/2005 20:03	6364.00	-0.2	3178.92	2.0
2367	92.3	2/19/2005 20:08	6369.00	-0.2	3183.92	2.0
2368	92.4	2/19/2005 20:13	6374.00	-0.3	3188.92	2.0
2369	92.3	2/19/2005 20:18	6379.00	-0.2	3193.92	2.0
2370	92.4	2/19/2005 20:23	6384.00	-0.3	3198.92	2.0
2371	92.4	2/19/2005 20:28	6389.00	-0.3	3203.92	2.0
2372	92.3	2/19/2005 20:33	6394.00	-0.2	3208.92	2.0
2373	92.3	2/19/2005 20:38	6399.00	-0.2	3213.92	2.0
2374	92.3	2/19/2005 20:43	6404.00	-0.2	3218.92	2.0
2375	92.4	2/19/2005 20:48	6409.00	-0.3	3223.92	2.0
2376	92.3	2/19/2005 20:53	6414.00	-0.2	3228.92	2.0

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2377	92.3	2/19/2005 20:58	6419.00	-0.2	3233.92	2.0
2378	92.3	2/19/2005 21:03	6424.00	-0.2	3238.92	2.0
2379	92.4	2/19/2005 21:08	6429.00	-0.3	3243.92	2.0
2380	92.4	2/19/2005 21:13	6434.00	-0.3	3248.92	2.0
2381	92.3	2/19/2005 21:18	6439.00	-0.2	3253.92	2.0
2382	92.3	2/19/2005 21:23	6444.00	-0.2	3258.92	2.0
2383	92.3	2/19/2005 21:28	6449.00	-0.2	3263.92	2.0
2384	92.3	2/19/2005 21:33	6454.00	-0.2	3268.92	2.0
2385	92.3	2/19/2005 21:38	6459.00	-0.2	3273.92	2.0
2386	92.3	2/19/2005 21:43	6464.00	-0.2	3278.92	2.0
2387	92.3	2/19/2005 21:48	6469.00	-0.2	3283.92	2.0
2388	92.3	2/19/2005 21:53	6474.00	-0.2	3288.92	2.0
2389	92.3	2/19/2005 21:58	6479.00	-0.2	3293.92	2.0
2390	92.3	2/19/2005 22:03	6484.00	-0.2	3298.92	2.0
2391	92.3	2/19/2005 22:08	6489.00	-0.2	3303.92	2.0
2392	92.3	2/19/2005 22:13	6494.00	-0.2	3308.92	2.0
2393	92.4	2/19/2005 22:18	6499.00	-0.3	3313.92	2.0
2394	92.3	2/19/2005 22:23	6504.00	-0.2	3318.92	2.0
2395	92.4	2/19/2005 22:28	6509.00	-0.3	3323.92	2.0
2396	92.4	2/19/2005 22:33	6514.00	-0.3	3328.92	2.0
2397	92.4	2/19/2005 22:38	6519.00	-0.3	3333.92	2.0
2398	92.3	2/19/2005 22:43	6524.00	-0.2	3338.92	2.0
2399	92.3	2/19/2005 22:48	6529.00	-0.2	3343.92	2.0
2400	92.4	2/19/2005 22:53	6534.00	-0.3	3348.92	2.0
2401	92.4	2/19/2005 22:58	6539.00	-0.3	3353.92	1.9
2402	92.4	2/19/2005 23:03	6544.00	-0.3	3358.92	1.9
2403	92.4	2/19/2005 23:08	6549.00	-0.3	3363.92	1.9
2404	92.4	2/19/2005 23:13	6554.00	-0.3	3368.92	1.9
2405	92.3	2/19/2005 23:18	6559.00	-0.2	3373.92	1.9
2406	92.4	2/19/2005 23:23	6564.00	-0.3	3378.92	1.9
2407	92.4	2/19/2005 23:28	6569.00	-0.3	3383.92	1.9
2408	92.4	2/19/2005 23:33	6574.00	-0.3	3388.92	1.9
2409	92.3	2/19/2005 23:38	6579.00	-0.3	3393.92	1.9
2410	92.3	2/19/2005 23:43	6584.00	-0.3	3398.92	1.9
2411	92.3	2/19/2005 23:48	6589.00	-0.3	3403.92	1.9
2412	92.3	2/19/2005 23:53	6594.00	-0.3	3408.92	1.9
2413	92.3	2/19/2005 23:58	6599.00	-0.3	3413.92	1.9
2414	92.2	2/20/2005 0:03	6604.00	-0.2	3418.92	1.9
2415	92.3	2/20/2005 0:08	6609.00	-0.3	3423.92	1.9
2416	92.3	2/20/2005 0:13	6614.00	-0.3	3428.92	1.9
2417	92.3	2/20/2005 0:18	6619.00	-0.3	3433.92	1.9
2418	92.3	2/20/2005 0:23	6624.00	-0.3	3438.92	1.9
2419	92.3	2/20/2005 0:28	6629.00	-0.3	3443.92	1.9
2420	92.3	2/20/2005 0:33	6634.00	-0.3	3448.92	1.9
2421	92.3	2/20/2005 0:38	6639.00	-0.2	3453.92	1.9
2422	92.4	2/20/2005 0:43	6644.00	-0.3	3458.92	1.9
2423	92.4	2/20/2005 0:48	6649.00	-0.3	3463.92	1.9
2424	92.4	2/20/2005 0:53	6654.00	-0.3	3468.92	1.9
2425	92.4	2/20/2005 0:58	6659.00	-0.3	3473.92	1.9
2426	92.4	2/20/2005 1:03	6664.00	-0.3	3478.92	1.9
2427	92.4	2/20/2005 1:08	6669.00	-0.3	3483.92	1.9

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2428	92.3	2/20/2005 1:13	6674.00	-0.2	3488.92	1.9
2429	92.4	2/20/2005 1:18	6679.00	-0.3	3493.92	1.9
2430	92.2	2/20/2005 1:23	6684.00	-0.2	3498.92	1.9
2431	92.3	2/20/2005 1:28	6689.00	-0.3	3503.92	1.9
2432	92.2	2/20/2005 1:33	6694.00	-0.2	3508.92	1.9
2433	92.3	2/20/2005 1:38	6699.00	-0.3	3513.92	1.9
2434	92.3	2/20/2005 1:43	6704.00	-0.3	3518.92	1.9
2435	92.3	2/20/2005 1:48	6709.00	-0.3	3523.92	1.9
2436	92.4	2/20/2005 1:53	6714.00	-0.3	3528.92	1.9
2437	92.4	2/20/2005 1:58	6719.00	-0.3	3533.92	1.9
2438	92.4	2/20/2005 2:03	6724.00	-0.3	3538.92	1.9
2439	92.4	2/20/2005 2:08	6729.00	-0.3	3543.92	1.9
2440	92.4	2/20/2005 2:13	6734.00	-0.3	3548.92	1.9
2441	92.4	2/20/2005 2:18	6739.00	-0.3	3553.92	1.9
2442	92.4	2/20/2005 2:23	6744.00	-0.3	3558.92	1.9
2443	92.4	2/20/2005 2:28	6749.00	-0.3	3563.92	1.9
2444	92.4	2/20/2005 2:33	6754.00	-0.3	3568.92	1.9
2445	92.4	2/20/2005 2:38	6759.00	-0.4	3573.92	1.9
2446	92.3	2/20/2005 2:43	6764.00	-0.3	3578.92	1.9
2447	92.3	2/20/2005 2:48	6769.00	-0.3	3583.92	1.9
2448	92.4	2/20/2005 2:53	6774.00	-0.3	3588.92	1.9
2449	92.4	2/20/2005 2:58	6779.00	-0.3	3593.92	1.9
2450	92.4	2/20/2005 3:03	6784.00	-0.3	3598.92	1.9
2451	92.4	2/20/2005 3:08	6789.00	-0.3	3603.92	1.9
2452	92.4	2/20/2005 3:13	6794.00	-0.3	3608.92	1.9
2453	92.4	2/20/2005 3:18	6799.00	-0.3	3613.92	1.9
2454	92.4	2/20/2005 3:23	6804.00	-0.3	3618.92	1.9
2455	92.4	2/20/2005 3:28	6809.00	-0.3	3623.92	1.9
2456	92.4	2/20/2005 3:33	6814.00	-0.3	3628.92	1.9
2457	92.5	2/20/2005 3:38	6819.00	-0.4	3633.92	1.9
2458	92.4	2/20/2005 3:43	6824.00	-0.3	3638.92	1.9
2459	92.4	2/20/2005 3:48	6829.00	-0.3	3643.92	1.9
2460	92.3	2/20/2005 3:53	6834.00	-0.3	3648.92	1.9
2461	92.3	2/20/2005 3:58	6839.00	-0.3	3653.92	1.9
2462	92.4	2/20/2005 4:03	6844.00	-0.4	3658.92	1.9
2463	92.4	2/20/2005 4:08	6849.00	-0.3	3663.92	1.9
2464	92.4	2/20/2005 4:13	6854.00	-0.3	3668.92	1.9
2465	92.4	2/20/2005 4:18	6859.00	-0.3	3673.92	1.9
2466	92.4	2/20/2005 4:23	6864.00	-0.3	3678.92	1.9
2467	92.4	2/20/2005 4:28	6869.00	-0.3	3683.92	1.9
2468	92.5	2/20/2005 4:33	6874.00	-0.4	3688.92	1.9
2469	92.3	2/20/2005 4:38	6879.00	-0.3	3693.92	1.9
2470	92.3	2/20/2005 4:43	6884.00	-0.3	3698.92	1.9
2471	92.3	2/20/2005 4:48	6889.00	-0.3	3703.92	1.9
2472	92.3	2/20/2005 4:53	6894.00	-0.3	3708.92	1.9
2473	92.3	2/20/2005 4:58	6899.00	-0.3	3713.92	1.9
2474	92.2	2/20/2005 5:03	6904.00	-0.2	3718.92	1.9
2475	92.3	2/20/2005 5:08	6909.00	-0.3	3723.92	1.9
2476	92.3	2/20/2005 5:13	6914.00	-0.3	3728.92	1.9
2477	92.4	2/20/2005 5:18	6919.00	-0.4	3733.92	1.9
2478	92.3	2/20/2005 5:23	6924.00	-0.3	3738.92	1.9

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2479	92.3	2/20/2005 5:28	6929.00	-0.3	3743.92	1.9
2480	92.3	2/20/2005 5:33	6934.00	-0.3	3748.92	1.8
2481	92.3	2/20/2005 5:38	6939.00	-0.3	3753.92	1.8
2482	92.4	2/20/2005 5:43	6944.00	-0.4	3758.92	1.8
2483	92.3	2/20/2005 5:48	6949.00	-0.3	3763.92	1.8
2484	92.4	2/20/2005 5:53	6954.00	-0.4	3768.92	1.8
2485	92.4	2/20/2005 5:58	6959.00	-0.4	3773.92	1.8
2486	92.3	2/20/2005 6:03	6964.00	-0.3	3778.92	1.8
2487	92.3	2/20/2005 6:08	6969.00	-0.3	3783.92	1.8
2488	92.4	2/20/2005 6:13	6974.00	-0.4	3788.92	1.8
2489	92.3	2/20/2005 6:18	6979.00	-0.3	3793.92	1.8
2490	92.4	2/20/2005 6:23	6984.00	-0.4	3798.92	1.8
2491	92.3	2/20/2005 6:28	6989.00	-0.3	3803.92	1.8
2492	92.3	2/20/2005 6:33	6994.00	-0.3	3808.92	1.8
2493	92.3	2/20/2005 6:38	6999.00	-0.3	3813.92	1.8
2494	92.4	2/20/2005 6:43	7004.00	-0.4	3818.92	1.8
2495	92.3	2/20/2005 6:48	7009.00	-0.3	3823.92	1.8
2496	92.3	2/20/2005 6:53	7014.00	-0.3	3828.92	1.8
2497	92.4	2/20/2005 6:58	7019.00	-0.4	3833.92	1.8
2498	92.3	2/20/2005 7:03	7024.00	-0.3	3838.92	1.8
2499	92.3	2/20/2005 7:08	7029.00	-0.3	3843.92	1.8
2500	92.3	2/20/2005 7:13	7034.00	-0.3	3848.92	1.8
2501	92.4	2/20/2005 7:18	7039.00	-0.4	3853.92	1.8
2502	92.4	2/20/2005 7:23	7044.00	-0.3	3858.92	1.8
2503	92.4	2/20/2005 7:28	7049.00	-0.3	3863.92	1.8
2504	92.3	2/20/2005 7:33	7054.00	-0.2	3868.92	1.8
2505	92.4	2/20/2005 7:38	7059.00	-0.3	3873.92	1.8
2506	92.4	2/20/2005 7:43	7064.00	-0.3	3878.92	1.8
2507	92.4	2/20/2005 7:48	7069.00	-0.3	3883.92	1.8
2508	92.3	2/20/2005 7:53	7074.00	-0.2	3888.92	1.8
2509	92.3	2/20/2005 7:58	7079.00	-0.2	3893.92	1.8
2510	92.5	2/20/2005 8:03	7084.00	-0.4	3898.92	1.8
2511	92.4	2/20/2005 8:08	7089.00	-0.3	3903.92	1.8
2512	92.3	2/20/2005 8:13	7094.00	-0.2	3908.92	1.8
2513	92.5	2/20/2005 8:18	7099.00	-0.4	3913.92	1.8
2514	92.4	2/20/2005 8:23	7104.00	-0.3	3918.92	1.8
2515	92.4	2/20/2005 8:28	7109.00	-0.3	3923.92	1.8
2516	92.4	2/20/2005 8:33	7114.00	-0.3	3928.92	1.8
2517	92.4	2/20/2005 8:38	7119.00	-0.3	3933.92	1.8
2518	92.4	2/20/2005 8:43	7124.00	-0.3	3938.92	1.8
2519	92.4	2/20/2005 8:48	7129.00	-0.3	3943.92	1.8
2520	92.3	2/20/2005 8:53	7134.00	-0.2	3948.92	1.8
2521	92.3	2/20/2005 8:58	7139.00	-0.2	3953.92	1.8
2522	92.4	2/20/2005 9:03	7144.00	-0.3	3958.92	1.8
2523	92.4	2/20/2005 9:08	7149.00	-0.3	3963.92	1.8
2524	92.3	2/20/2005 9:13	7154.00	-0.2	3968.92	1.8
2525	92.4	2/20/2005 9:18	7159.00	-0.3	3973.92	1.8
2526	92.3	2/20/2005 9:23	7164.00	-0.2	3978.92	1.8
2527	92.4	2/20/2005 9:28	7169.00	-0.3	3983.92	1.8
2528	92.4	2/20/2005 9:33	7174.00	-0.3	3988.92	1.8
2529	92.4	2/20/2005 9:38	7179.00	-0.3	3993.92	1.8

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2530	92.3	2/20/2005 9:43	7184.00	-0.2	3998.92	1.8
2531	92.4	2/20/2005 9:48	7189.00	-0.3	4003.92	1.8
2532	92.4	2/20/2005 9:53	7194.00	-0.3	4008.92	1.8
2533	92.4	2/20/2005 9:58	7199.00	-0.3	4013.92	1.8
2534	92.4	2/20/2005 10:03	7204.00	-0.3	4018.92	1.8
2535	92.3	2/20/2005 10:08	7209.00	-0.2	4023.92	1.8
2536	92.4	2/20/2005 10:13	7214.00	-0.3	4028.92	1.8
2537	92.3	2/20/2005 10:18	7219.00	-0.2	4033.92	1.8
2538	92.4	2/20/2005 10:23	7224.00	-0.3	4038.92	1.8
2539	92.4	2/20/2005 10:28	7229.00	-0.3	4043.92	1.8
2540	92.4	2/20/2005 10:33	7234.00	-0.3	4048.92	1.8
2541	92.3	2/20/2005 10:38	7239.00	-0.2	4053.92	1.8
2542	92.4	2/20/2005 10:43	7244.00	-0.3	4058.92	1.8
2543	92.3	2/20/2005 10:48	7249.00	-0.2	4063.92	1.8
2544	92.3	2/20/2005 10:53	7254.00	-0.2	4068.92	1.8
2545	92.4	2/20/2005 10:58	7259.00	-0.3	4073.92	1.8
2546	92.3	2/20/2005 11:03	7264.00	-0.2	4078.92	1.8
2547	92.3	2/20/2005 11:08	7269.00	-0.2	4083.92	1.8
2548	92.4	2/20/2005 11:13	7274.00	-0.3	4088.92	1.8
2549	92.3	2/20/2005 11:18	7279.00	-0.2	4093.92	1.8
2550	92.4	2/20/2005 11:23	7284.00	-0.3	4098.92	1.8
2551	92.3	2/20/2005 11:28	7289.00	-0.2	4103.92	1.8
2552	92.4	2/20/2005 11:33	7294.00	-0.3	4108.92	1.8
2553	92.4	2/20/2005 11:38	7299.00	-0.3	4113.92	1.8
2554	92.4	2/20/2005 11:43	7304.00	-0.3	4118.92	1.8
2555	92.4	2/20/2005 11:48	7309.00	-0.3	4123.92	1.8
2556	92.3	2/20/2005 11:53	7314.00	-0.2	4128.92	1.8
2557	92.4	2/20/2005 11:58	7319.00	-0.3	4133.92	1.8
2558	92.4	2/20/2005 12:03	7324.00	-0.3	4138.92	1.8
2559	92.4	2/20/2005 12:08	7329.00	-0.3	4143.92	1.8
2560	92.4	2/20/2005 12:13	7334.00	-0.3	4148.92	1.8
2561	92.4	2/20/2005 12:18	7339.00	-0.3	4153.92	1.8
2562	92.3	2/20/2005 12:23	7344.00	-0.2	4158.92	1.8
2563	92.3	2/20/2005 12:28	7349.00	-0.2	4163.92	1.8
2564	92.3	2/20/2005 12:33	7354.00	-0.2	4168.92	1.8
2565	92.3	2/20/2005 12:38	7359.00	-0.2	4173.92	1.8
2566	92.4	2/20/2005 12:43	7364.00	-0.3	4178.92	1.8
2567	92.4	2/20/2005 12:48	7369.00	-0.3	4183.92	1.8
2568	92.4	2/20/2005 12:53	7374.00	-0.3	4188.92	1.8
2569	92.4	2/20/2005 12:58	7379.00	-0.3	4193.92	1.8
2570	92.4	2/20/2005 13:03	7384.00	-0.3	4198.92	1.8
2571	92.4	2/20/2005 13:08	7389.00	-0.3	4203.92	1.8
2572	92.3	2/20/2005 13:13	7394.00	-0.2	4208.92	1.8
2573	92.3	2/20/2005 13:18	7399.00	-0.2	4213.92	1.8
2574	92.4	2/20/2005 13:23	7404.00	-0.3	4218.92	1.8
2575	92.3	2/20/2005 13:28	7409.00	-0.2	4223.92	1.8
2576	92.3	2/20/2005 13:33	7414.00	-0.2	4228.92	1.8
2577	92.3	2/20/2005 13:38	7419.00	-0.2	4233.92	1.8
2578	92.4	2/20/2005 13:43	7424.00	-0.3	4238.92	1.8
2579	92.4	2/20/2005 13:48	7429.00	-0.3	4243.92	1.8
2580	92.4	2/20/2005 13:53	7434.00	-0.4	4248.92	1.7

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2581	92.4	2/20/2005 13:58	7439.00	-0.4	4253.92	1.7
2582	92.4	2/20/2005 14:03	7444.00	-0.4	4258.92	1.7
2583	92.3	2/20/2005 14:08	7449.00	-0.2	4263.92	1.7
2584	92.4	2/20/2005 14:13	7454.00	-0.3	4268.92	1.7
2585	92.4	2/20/2005 14:18	7459.00	-0.3	4273.92	1.7
2586	92.4	2/20/2005 14:23	7464.00	-0.4	4278.92	1.7
2587	92.4	2/20/2005 14:28	7469.00	-0.4	4283.92	1.7
2588	92.3	2/20/2005 14:33	7474.00	-0.3	4288.92	1.7
2589	92.4	2/20/2005 14:38	7479.00	-0.4	4293.92	1.7
2590	92.4	2/20/2005 14:43	7484.00	-0.4	4298.92	1.7
2591	92.4	2/20/2005 14:48	7489.00	-0.4	4303.92	1.7
2592	92.4	2/20/2005 14:53	7494.00	-0.4	4308.92	1.7
2593	92.3	2/20/2005 14:58	7499.00	-0.3	4313.92	1.7
2594	92.4	2/20/2005 15:03	7504.00	-0.4	4318.92	1.7
2595	92.4	2/20/2005 15:08	7509.00	-0.4	4323.92	1.7
2596	92.4	2/20/2005 15:13	7514.00	-0.4	4328.92	1.7
2597	92.3	2/20/2005 15:18	7519.00	-0.3	4333.92	1.7
2598	92.4	2/20/2005 15:23	7524.00	-0.4	4338.92	1.7
2599	92.4	2/20/2005 15:28	7529.00	-0.4	4343.92	1.7
2600	92.4	2/20/2005 15:33	7534.00	-0.4	4348.92	1.7
2601	92.4	2/20/2005 15:38	7539.00	-0.4	4353.92	1.7
2602	92.3	2/20/2005 15:43	7544.00	-0.3	4358.92	1.7
2603	92.4	2/20/2005 15:48	7549.00	-0.4	4363.92	1.7
2604	92.4	2/20/2005 15:53	7554.00	-0.4	4368.92	1.7
2605	92.4	2/20/2005 15:58	7559.00	-0.4	4373.92	1.7
2606	92.4	2/20/2005 16:03	7564.00	-0.4	4378.92	1.7
2607	92.4	2/20/2005 16:08	7569.00	-0.4	4383.92	1.7
2608	92.4	2/20/2005 16:13	7574.00	-0.4	4388.92	1.7
2609	92.4	2/20/2005 16:18	7579.00	-0.4	4393.92	1.7
2610	92.4	2/20/2005 16:23	7584.00	-0.4	4398.92	1.7
2611	92.4	2/20/2005 16:28	7589.00	-0.4	4403.92	1.7
2612	92.3	2/20/2005 16:33	7594.00	-0.3	4408.92	1.7
2613	92.3	2/20/2005 16:38	7599.00	-0.3	4413.92	1.7
2614	92.4	2/20/2005 16:43	7604.00	-0.4	4418.92	1.7
2615	92.4	2/20/2005 16:48	7609.00	-0.4	4423.92	1.7
2616	92.3	2/20/2005 16:53	7614.00	-0.3	4428.92	1.7
2617	92.4	2/20/2005 16:58	7619.00	-0.4	4433.92	1.7
2618	92.4	2/20/2005 17:03	7624.00	-0.4	4438.92	1.7
2619	92.4	2/20/2005 17:08	7629.00	-0.4	4443.92	1.7
2620	92.4	2/20/2005 17:13	7634.00	-0.4	4448.92	1.7
2621	92.4	2/20/2005 17:18	7639.00	-0.4	4453.92	1.7
2622	92.5	2/20/2005 17:23	7644.00	-0.4	4458.92	1.7
2623	92.5	2/20/2005 17:28	7649.00	-0.4	4463.92	1.7
2624	92.5	2/20/2005 17:33	7654.00	-0.4	4468.92	1.7
2625	92.5	2/20/2005 17:38	7659.00	-0.4	4473.92	1.7
2626	92.5	2/20/2005 17:43	7664.00	-0.4	4478.92	1.7
2627	92.5	2/20/2005 17:48	7669.00	-0.4	4483.92	1.7
2628	92.5	2/20/2005 17:53	7674.00	-0.4	4488.92	1.7
2629	92.4	2/20/2005 17:58	7679.00	-0.3	4493.92	1.7
2630	92.4	2/20/2005 18:03	7684.00	-0.3	4498.92	1.7
2631	92.5	2/20/2005 18:08	7689.00	-0.5	4503.92	1.7

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2632	92.4	2/20/2005 18:13	7694.00	-0.4	4508.92	1.7
2633	92.4	2/20/2005 18:18	7699.00	-0.4	4513.92	1.7
2634	92.4	2/20/2005 18:23	7704.00	-0.4	4518.92	1.7
2635	92.4	2/20/2005 18:28	7709.00	-0.4	4523.92	1.7
2636	92.4	2/20/2005 18:33	7714.00	-0.4	4528.92	1.7
2637	92.4	2/20/2005 18:38	7719.00	-0.4	4533.92	1.7
2638	92.4	2/20/2005 18:43	7724.00	-0.4	4538.92	1.7
2639	92.4	2/20/2005 18:48	7729.00	-0.4	4543.92	1.7
2640	92.4	2/20/2005 18:53	7734.00	-0.4	4548.92	1.7
2641	92.4	2/20/2005 18:58	7739.00	-0.4	4553.92	1.7
2642	92.4	2/20/2005 19:03	7744.00	-0.4	4558.92	1.7
2643	92.4	2/20/2005 19:08	7749.00	-0.4	4563.92	1.7
2644	92.4	2/20/2005 19:13	7754.00	-0.4	4568.92	1.7
2645	92.4	2/20/2005 19:18	7759.00	-0.4	4573.92	1.7
2646	92.4	2/20/2005 19:23	7764.00	-0.4	4578.92	1.7
2647	92.4	2/20/2005 19:28	7769.00	-0.4	4583.92	1.7
2648	92.4	2/20/2005 19:33	7774.00	-0.4	4588.92	1.7
2649	92.4	2/20/2005 19:38	7779.00	-0.4	4593.92	1.7
2650	92.4	2/20/2005 19:43	7784.00	-0.4	4598.92	1.7
2651	92.5	2/20/2005 19:48	7789.00	-0.5	4603.92	1.7
2652	92.5	2/20/2005 19:53	7794.00	-0.4	4608.92	1.7
2653	92.5	2/20/2005 19:58	7799.00	-0.4	4613.92	1.7
2654	92.5	2/20/2005 20:03	7804.00	-0.4	4618.92	1.7
2655	92.4	2/20/2005 20:08	7809.00	-0.4	4623.92	1.7
2656	92.4	2/20/2005 20:13	7814.00	-0.4	4628.92	1.7
2657	92.4	2/20/2005 20:18	7819.00	-0.4	4633.92	1.7
2658	92.3	2/20/2005 20:23	7824.00	-0.3	4638.92	1.7
2659	92.5	2/20/2005 20:28	7829.00	-0.5	4643.92	1.7
2660	92.4	2/20/2005 20:33	7834.00	-0.4	4648.92	1.7
2661	92.5	2/20/2005 20:38	7839.00	-0.5	4653.92	1.7
2662	92.4	2/20/2005 20:43	7844.00	-0.4	4658.92	1.7
2663	92.4	2/20/2005 20:48	7849.00	-0.4	4663.92	1.7
2664	92.6	2/20/2005 20:53	7854.00	-0.5	4668.92	1.7
2665	92.6	2/20/2005 20:58	7859.00	-0.5	4673.92	1.7
2666	92.5	2/20/2005 21:03	7864.00	-0.4	4678.92	1.7
2667	92.4	2/20/2005 21:08	7869.00	-0.4	4683.92	1.7
2668	92.5	2/20/2005 21:13	7874.00	-0.5	4688.92	1.7
2669	92.4	2/20/2005 21:18	7879.00	-0.4	4693.92	1.7
2670	92.4	2/20/2005 21:23	7884.00	-0.4	4698.92	1.7
2671	92.4	2/20/2005 21:28	7889.00	-0.4	4703.92	1.7
2672	92.4	2/20/2005 21:33	7894.00	-0.4	4708.92	1.7
2673	92.4	2/20/2005 21:38	7899.00	-0.4	4713.92	1.7
2674	92.4	2/20/2005 21:43	7904.00	-0.4	4718.92	1.7
2675	92.4	2/20/2005 21:48	7909.00	-0.4	4723.92	1.7
2676	92.4	2/20/2005 21:53	7914.00	-0.4	4728.92	1.7
2677	92.4	2/20/2005 21:58	7919.00	-0.4	4733.92	1.7
2678	92.5	2/20/2005 22:03	7924.00	-0.5	4738.92	1.7
2679	92.6	2/20/2005 22:08	7929.00	-0.5	4743.92	1.7
2680	92.5	2/20/2005 22:13	7934.00	-0.4	4748.92	1.7
2681	92.6	2/20/2005 22:18	7939.00	-0.5	4753.92	1.7
2682	92.6	2/20/2005 22:23	7944.00	-0.5	4758.92	1.7

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2683	92.5	2/20/2005 22:28	7949.00	-0.4	4763.92	1.7
2684	92.6	2/20/2005 22:33	7954.00	-0.5	4768.92	1.7
2685	92.6	2/20/2005 22:38	7959.00	-0.5	4773.92	1.7
2686	92.5	2/20/2005 22:43	7964.00	-0.4	4778.92	1.7
2687	92.5	2/20/2005 22:48	7969.00	-0.4	4783.92	1.7
2688	92.5	2/20/2005 22:53	7974.00	-0.4	4788.92	1.7
2689	92.5	2/20/2005 22:58	7979.00	-0.4	4793.92	1.7
2690	92.5	2/20/2005 23:03	7984.00	-0.4	4798.92	1.7
2691	92.6	2/20/2005 23:08	7989.00	-0.5	4803.92	1.7
2692	92.6	2/20/2005 23:13	7994.00	-0.5	4808.92	1.7
2693	92.6	2/20/2005 23:18	7999.00	-0.5	4813.92	1.7
2694	92.5	2/20/2005 23:23	8004.00	-0.4	4818.92	1.7
2695	92.5	2/20/2005 23:28	8009.00	-0.4	4823.92	1.7
2696	92.6	2/20/2005 23:33	8014.00	-0.5	4828.92	1.7
2697	92.6	2/20/2005 23:38	8019.00	-0.5	4833.92	1.7
2698	92.6	2/20/2005 23:43	8024.00	-0.5	4838.92	1.7
2699	92.5	2/20/2005 23:48	8029.00	-0.4	4843.92	1.7
2700	92.6	2/20/2005 23:53	8034.00	-0.5	4848.92	1.7
2701	92.6	2/20/2005 23:58	8039.00	-0.5	4853.92	1.7
2702	92.5	2/21/2005 0:03	8044.00	-0.4	4858.92	1.7
2703	92.6	2/21/2005 0:08	8049.00	-0.5	4863.92	1.7
2704	92.6	2/21/2005 0:13	8054.00	-0.5	4868.92	1.7
2705	92.5	2/21/2005 0:18	8059.00	-0.4	4873.92	1.7
2706	92.5	2/21/2005 0:23	8064.00	-0.4	4878.92	1.7
2707	92.6	2/21/2005 0:28	8069.00	-0.5	4883.92	1.7
2708	92.6	2/21/2005 0:33	8074.00	-0.5	4888.92	1.7
2709	92.6	2/21/2005 0:38	8079.00	-0.5	4893.92	1.7
2710	92.5	2/21/2005 0:43	8084.00	-0.4	4898.92	1.7
2711	92.5	2/21/2005 0:48	8089.00	-0.4	4903.92	1.6
2712	92.5	2/21/2005 0:53	8094.00	-0.4	4908.92	1.6
2713	92.5	2/21/2005 0:58	8099.00	-0.4	4913.92	1.6
2714	92.6	2/21/2005 1:03	8104.00	-0.5	4918.92	1.6
2715	92.6	2/21/2005 1:08	8109.00	-0.5	4923.92	1.6
2716	92.6	2/21/2005 1:13	8114.00	-0.5	4928.92	1.6
2717	92.6	2/21/2005 1:18	8119.00	-0.5	4933.92	1.6
2718	92.6	2/21/2005 1:23	8124.00	-0.5	4938.92	1.6
2719	92.6	2/21/2005 1:28	8129.00	-0.5	4943.92	1.6
2720	92.6	2/21/2005 1:33	8134.00	-0.5	4948.92	1.6
2721	92.6	2/21/2005 1:38	8139.00	-0.5	4953.92	1.6
2722	92.6	2/21/2005 1:43	8144.00	-0.5	4958.92	1.6
2723	92.5	2/21/2005 1:48	8149.00	-0.5	4963.92	1.6
2724	92.6	2/21/2005 1:53	8154.00	-0.6	4968.92	1.6
2725	92.6	2/21/2005 1:58	8159.00	-0.6	4973.92	1.6
2726	92.5	2/21/2005 2:03	8164.00	-0.5	4978.92	1.6
2727	92.5	2/21/2005 2:08	8169.00	-0.5	4983.92	1.6
2728	92.5	2/21/2005 2:13	8174.00	-0.5	4988.92	1.6
2729	92.5	2/21/2005 2:18	8179.00	-0.5	4993.92	1.6
2730	92.5	2/21/2005 2:23	8184.00	-0.5	4998.92	1.6
2731	92.6	2/21/2005 2:28	8189.00	-0.6	5003.92	1.6
2732	92.5	2/21/2005 2:33	8194.00	-0.5	5008.92	1.6
2733	92.5	2/21/2005 2:38	8199.00	-0.5	5013.92	1.6

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

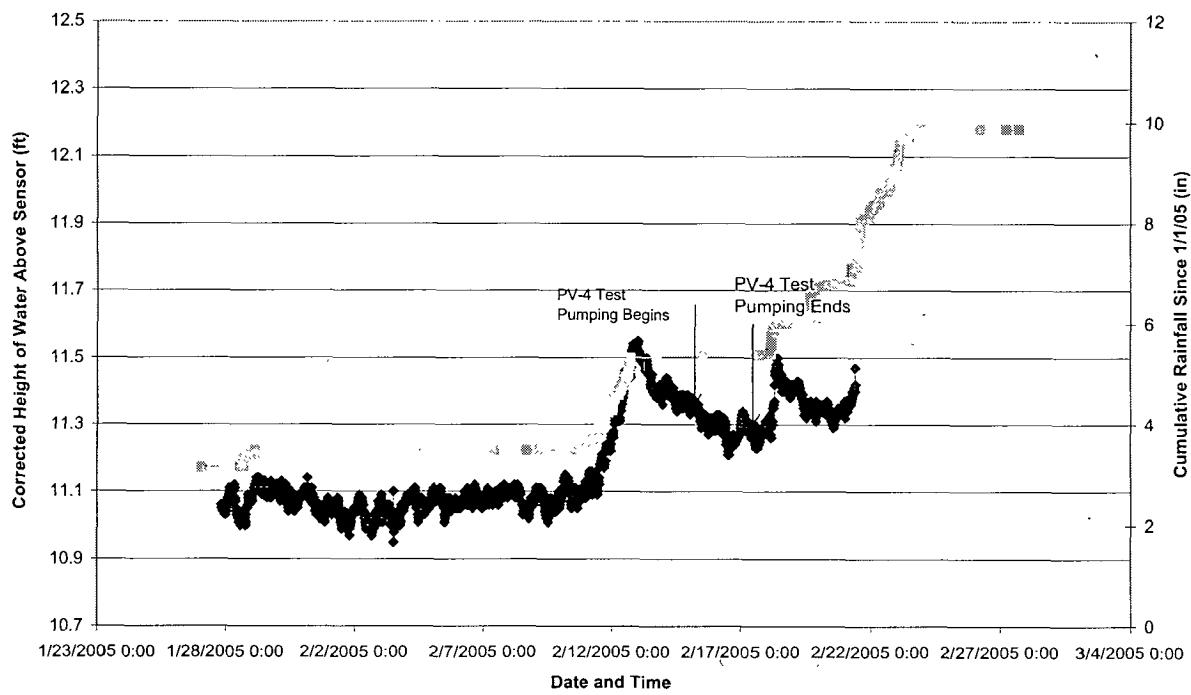
Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	t/t'
2734	92.5	2/21/2005 2:43	8204.00	-0.5	5018.92	1.6
2735	92.5	2/21/2005 2:48	8209.00	-0.5	5023.92	1.6
2736	92.5	2/21/2005 2:53	8214.00	-0.5	5028.92	1.6
2737	92.6	2/21/2005 2:58	8219.00	-0.6	5033.92	1.6
2738	92.5	2/21/2005 3:03	8224.00	-0.5	5038.92	1.6
2739	92.5	2/21/2005 3:08	8229.00	-0.5	5043.92	1.6
2740	92.6	2/21/2005 3:13	8234.00	-0.6	5048.92	1.6
2741	92.5	2/21/2005 3:18	8239.00	-0.5	5053.92	1.6
2742	92.5	2/21/2005 3:23	8244.00	-0.5	5058.92	1.6
2743	92.6	2/21/2005 3:28	8249.00	-0.6	5063.92	1.6
2744	92.5	2/21/2005 3:33	8254.00	-0.5	5068.92	1.6
2745	92.5	2/21/2005 3:38	8259.00	-0.5	5073.92	1.6
2746	92.5	2/21/2005 3:43	8264.00	-0.5	5078.92	1.6
2747	92.5	2/21/2005 3:48	8269.00	-0.5	5083.92	1.6
2748	92.6	2/21/2005 3:53	8274.00	-0.5	5088.92	1.6
2749	92.7	2/21/2005 3:58	8279.00	-0.6	5093.92	1.6
2750	92.7	2/21/2005 4:03	8284.00	-0.6	5098.92	1.6
2751	92.6	2/21/2005 4:08	8289.00	-0.5	5103.92	1.6
2752	92.6	2/21/2005 4:13	8294.00	-0.5	5108.92	1.6
2753	92.6	2/21/2005 4:18	8299.00	-0.5	5113.92	1.6
2754	92.6	2/21/2005 4:23	8304.00	-0.5	5118.92	1.6
2755	92.6	2/21/2005 4:28	8309.00	-0.5	5123.92	1.6
2756	92.6	2/21/2005 4:33	8314.00	-0.5	5128.92	1.6
2757	92.6	2/21/2005 4:38	8319.00	-0.5	5133.92	1.6
2758	92.6	2/21/2005 4:43	8324.00	-0.5	5138.92	1.6
2759	92.6	2/21/2005 4:48	8329.00	-0.5	5143.92	1.6
2760	92.6	2/21/2005 4:53	8334.00	-0.5	5148.92	1.6
2761	92.6	2/21/2005 4:58	8339.00	-0.5	5153.92	1.6
2762	92.6	2/21/2005 5:03	8344.00	-0.5	5158.92	1.6
2763	92.5	2/21/2005 5:08	8349.00	-0.5	5163.92	1.6
2764	92.5	2/21/2005 5:13	8354.00	-0.5	5168.92	1.6
2765	92.5	2/21/2005 5:18	8359.00	-0.5	5173.92	1.6
2766	92.7	2/21/2005 5:23	8364.00	-0.6	5178.92	1.6
2767	92.6	2/21/2005 5:28	8369.00	-0.5	5183.92	1.6
2768	92.6	2/21/2005 5:33	8374.00	-0.5	5188.92	1.6
2769	92.6	2/21/2005 5:38	8379.00	-0.5	5193.92	1.6
2770	92.6	2/21/2005 5:43	8384.00	-0.5	5198.92	1.6
2771	92.6	2/21/2005 5:48	8389.00	-0.5	5203.92	1.6
2772	92.6	2/21/2005 5:53	8394.00	-0.5	5208.92	1.6
2773	92.6	2/21/2005 5:58	8399.00	-0.5	5213.92	1.6
2774	92.6	2/21/2005 6:03	8404.00	-0.5	5218.92	1.6
2775	92.6	2/21/2005 6:08	8409.00	-0.5	5223.92	1.6
2776	92.6	2/21/2005 6:13	8414.00	-0.5	5228.92	1.6
2777	92.6	2/21/2005 6:18	8419.00	-0.5	5233.92	1.6
2778	92.7	2/21/2005 6:23	8424.00	-0.6	5238.92	1.6
2779	92.6	2/21/2005 6:28	8429.00	-0.5	5243.92	1.6
2780	92.6	2/21/2005 6:33	8434.00	-0.5	5248.92	1.6
2781	92.6	2/21/2005 6:38	8439.00	-0.5	5253.92	1.6
2782	92.7	2/21/2005 6:43	8444.00	-0.6	5258.92	1.6
2783	92.6	2/21/2005 6:48	8449.00	-0.5	5263.92	1.6
2784	92.6	2/21/2005 6:53	8454.00	-0.5	5268.92	1.6

**CONSTANT DISCHARGE TEST**  
**PUMPING WELL PV-4**  
**DISCHARGE = 41 gallons per minute**  
**PEACEFUL VALLEY RANCH**

Data Entry No.	Height of Water Above Transducer, Barometrically Corrected (ft)	Date & Time, PV-4 Logger	Time Since Pumping Began (minutes)	Barometrically Corrected Drawdown (ft)	Time Since Pumping Stopped (minutes)	
						t/t'
2785	92.6	2/21/2005 6:58	8459.00	-0.5	5273.92	1.6
2786	92.6	2/21/2005 7:03	8464.00	-0.5	5278.92	1.6
2787	92.6	2/21/2005 7:08	8469.00	-0.5	5283.92	1.6
2788	92.7	2/21/2005 7:13	8474.00	-0.6	5288.92	1.6
2789	92.6	2/21/2005 7:18	8479.00	-0.5	5293.92	1.6
2790	92.6	2/21/2005 7:23	8484.00	-0.5	5298.92	1.6
2791	92.6	2/21/2005 7:28	8489.00	-0.5	5303.92	1.6
2792	92.5	2/21/2005 7:33	8494.00	-0.4	5308.92	1.6
2793	92.6	2/21/2005 7:38	8499.00	-0.5	5313.92	1.6
2794	92.6	2/21/2005 7:43	8504.00	-0.5	5318.92	1.6
2795	92.6	2/21/2005 7:48	8509.00	-0.5	5323.92	1.6
2796	92.6	2/21/2005 7:53	8514.00	-0.5	5328.92	1.6
2797	92.6	2/21/2005 7:58	8519.00	-0.5	5333.92	1.6
2798	92.6	2/21/2005 8:03	8524.00	-0.5	5338.92	1.6
2799	92.7	2/21/2005 8:08	8529.00	-0.6	5343.92	1.6
2800	92.6	2/21/2005 8:13	8534.00	-0.5	5348.92	1.6
2801	92.6	2/21/2005 8:18	8539.00	-0.5	5353.92	1.6
2802	92.6	2/21/2005 8:23	8544.00	-0.5	5358.92	1.6
2803	92.6	2/21/2005 8:28	8549.00	-0.5	5363.92	1.6
2804	92.6	2/21/2005 8:33	8554.00	-0.5	5368.92	1.6
2805	92.7	2/21/2005 8:38	8559.00	-0.6	5373.92	1.6
2806	92.7	2/21/2005 8:43	8564.00	-0.6	5378.92	1.6
2807	92.7	2/21/2005 8:48	8569.00	-0.6	5383.92	1.6
2808	92.6	2/21/2005 8:53	8574.00	-0.5	5388.92	1.6
2809	92.6	2/21/2005 8:58	8579.00	-0.5	5393.92	1.6
2810	92.6	2/21/2005 9:03	8584.00	-0.5	5398.92	1.6
2811	92.6	2/21/2005 9:08	8589.00	-0.5	5403.92	1.6
2812	92.6	2/21/2005 9:13	8594.00	-0.5	5408.92	1.6
2813	92.7	2/21/2005 9:18	8599.00	-0.6	5413.92	1.6
2814	92.7	2/21/2005 9:23	8604.00	-0.6	5418.92	1.6
2815	92.7	2/21/2005 9:28	8609.00	-0.6	5423.92	1.6
2816	92.6	2/21/2005 9:33	8614.00	-0.5	5428.92	1.6
2817	92.6	2/21/2005 9:38	8619.00	-0.5	5433.92	1.6
2818	92.7	2/21/2005 9:43	8624.00	-0.6	5438.92	1.6
2819	92.6	2/21/2005 9:48	8629.00	-0.5	5443.92	1.6
2820	92.6	2/21/2005 9:53	8634.00	-0.5	5448.92	1.6
2821	92.7	2/21/2005 9:58	8639.00	-0.6	5453.92	1.6
2822	92.6	2/21/2005 10:03	8644.00	-0.5	5458.92	1.6
2823	92.6	2/21/2005 10:08	8649.00	-0.5	5463.92	1.6
2824	92.6	2/21/2005 10:13	8654.00	-0.5	5468.92	1.6
2825	92.6	2/21/2005 10:18	8659.00	-0.5	5473.92	1.6
2826	92.6	2/21/2005 10:23	8664.00	-0.5	5478.92	1.6

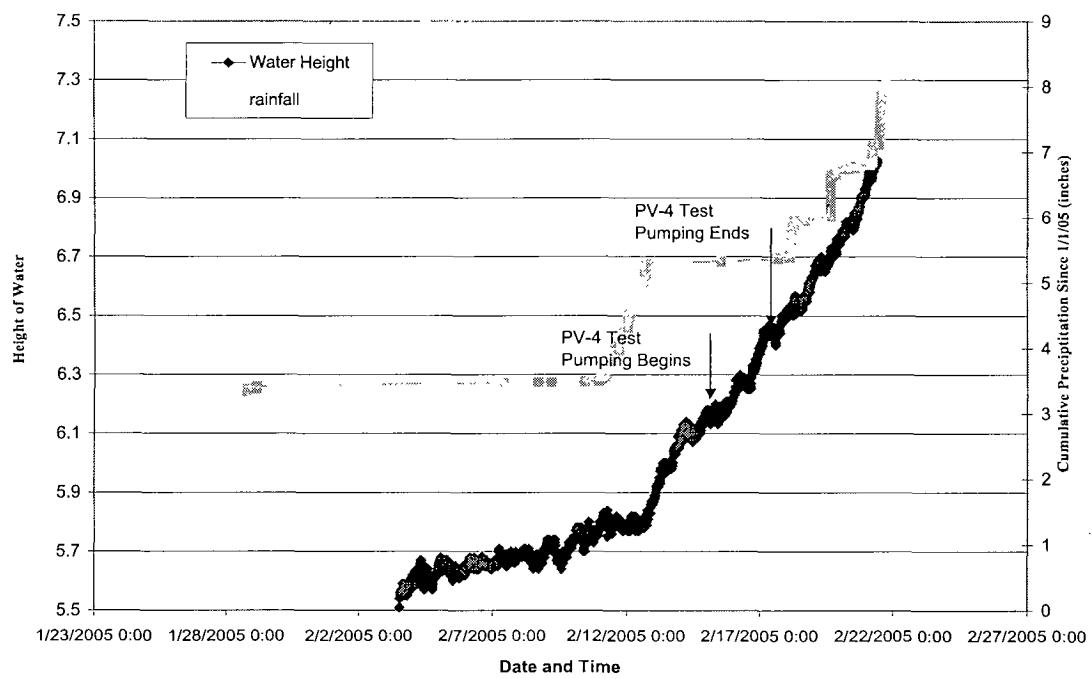
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Corrected Water Height Above Transducer and Cumulative Precipitation Versus Time**  
**Septic Boring J**



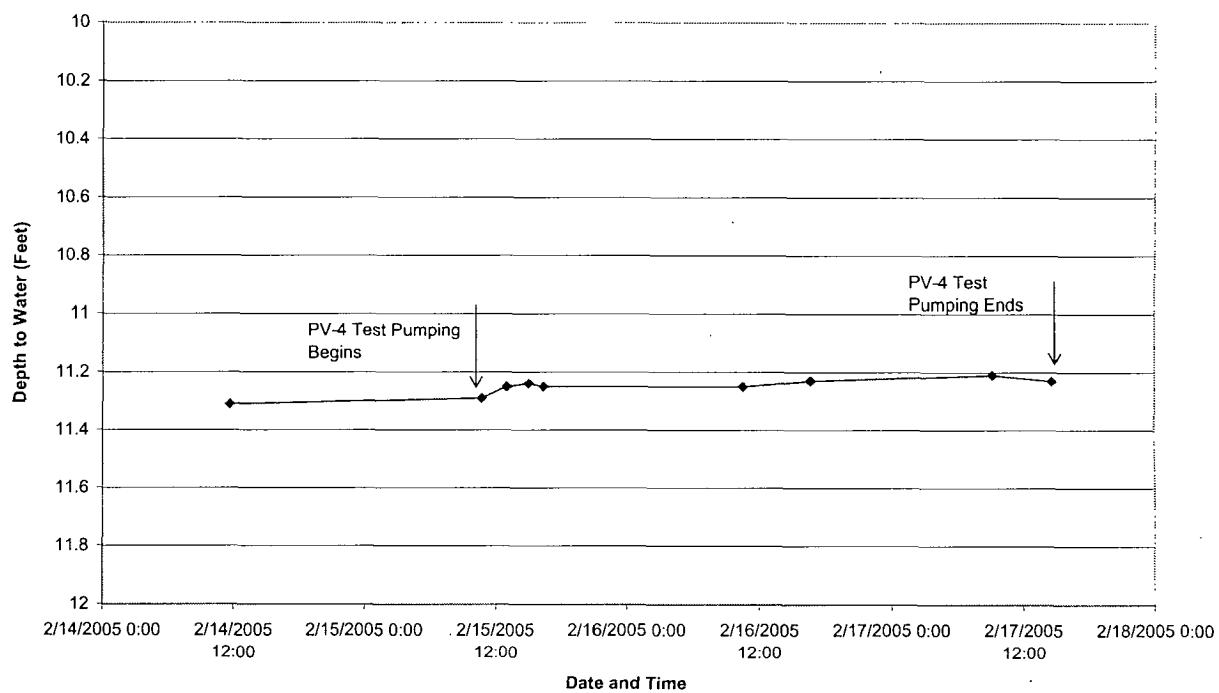
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Barometrically Corrected Height of Water Above Transducer  
and Cumulative Precipitation Vs. Time  
PV-2**



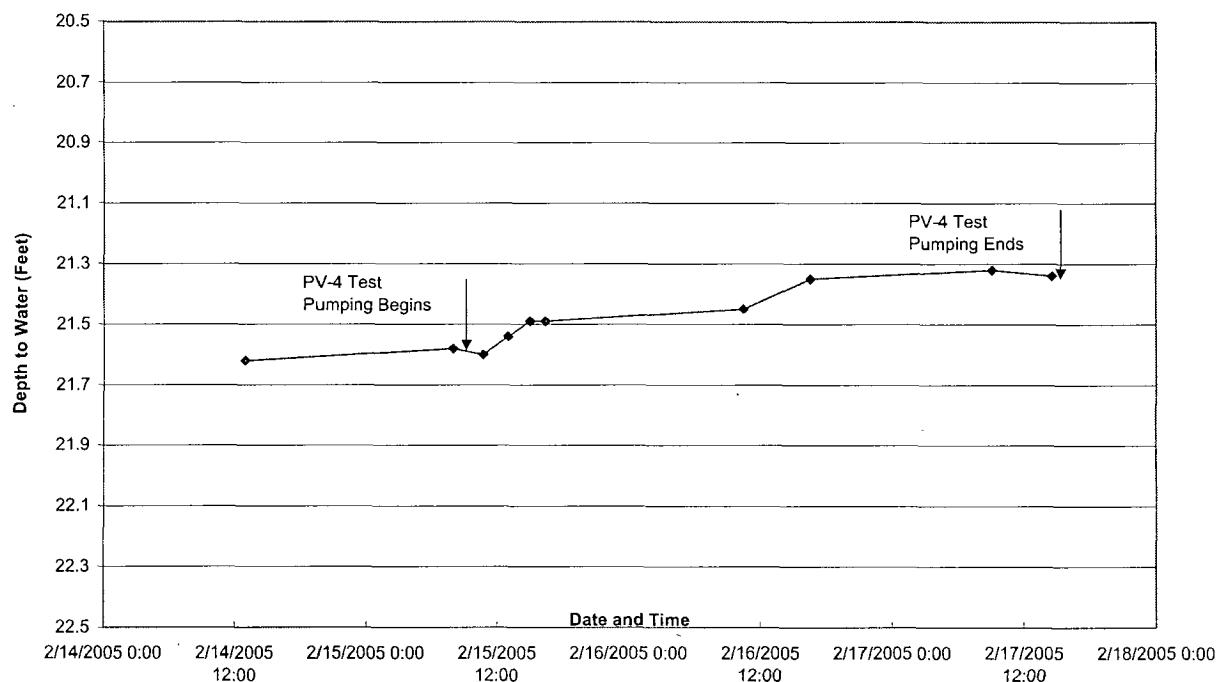
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Depth to Water Vs. Time  
Boring D**



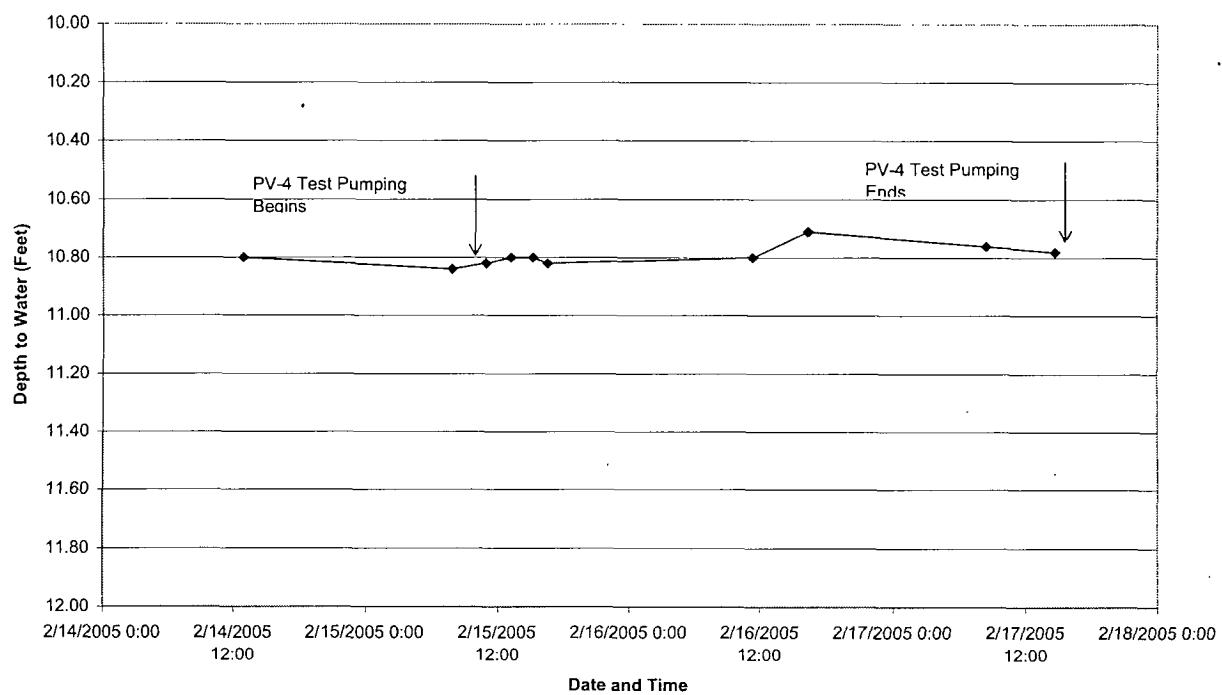
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Depth to Water Vs Time**  
**OW-8**



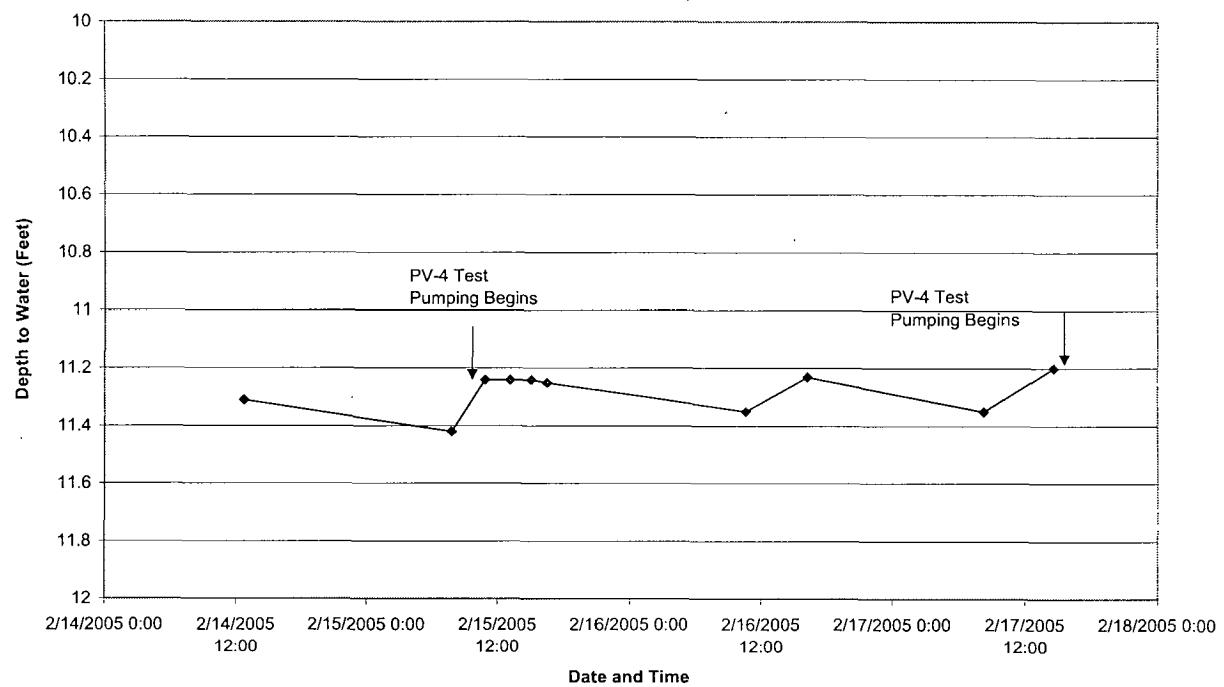
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Depth to Water Vs. Time  
Boring C**



**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

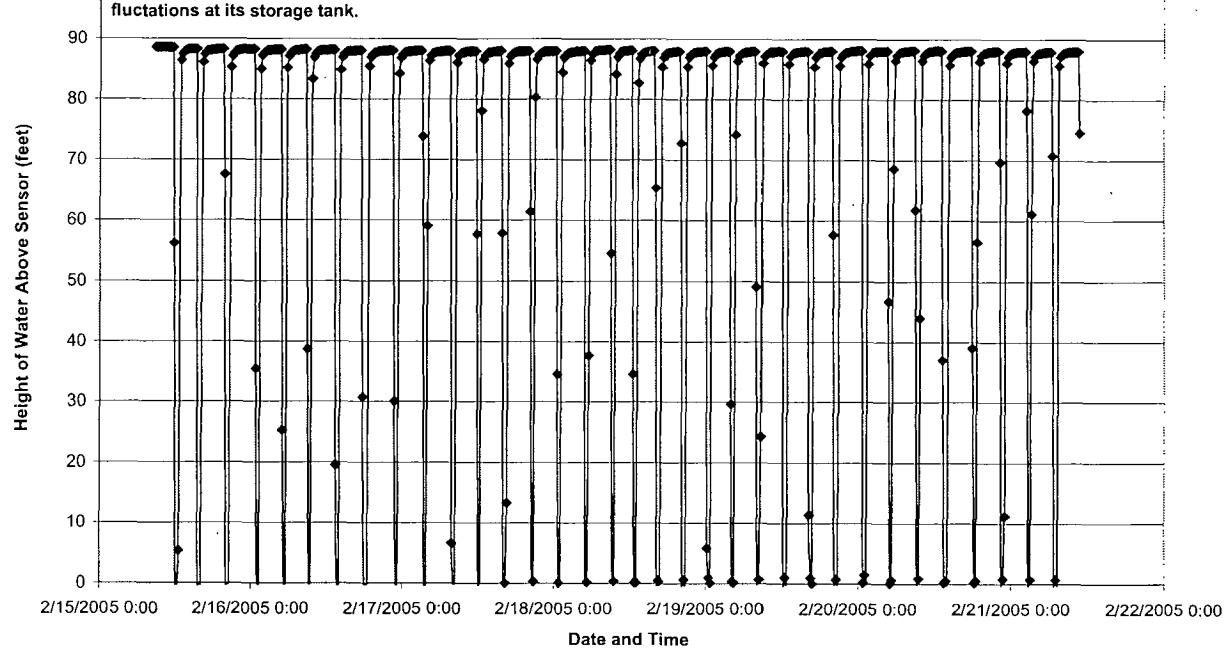
**Depth to Water Vs. Time  
PV-3**



**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

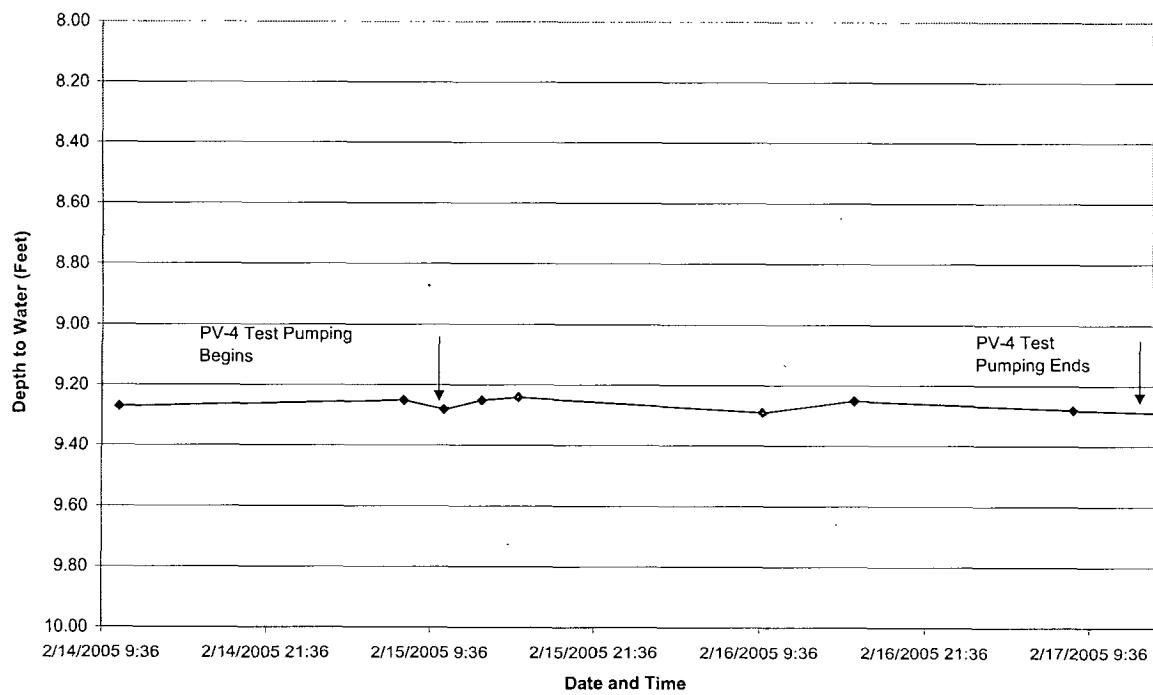
**Barometrically Corrected Height of Water Above Sensor (feet) Vs. Time  
PV-1**

At a height of water above the sensor of 0 feet, the water level is below the sensor. This well is being actively pumped for a short period of time about every 4 to 5 hours in response to pressure fluctuations at its storage tank.



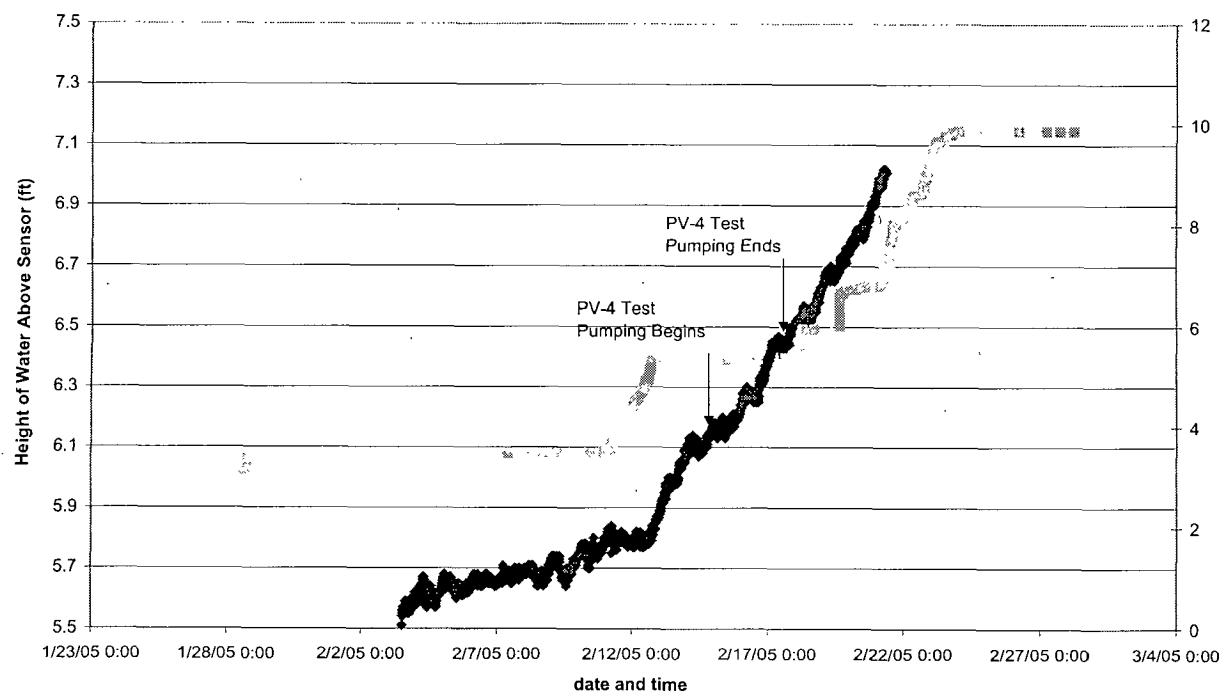
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Depth to Water Vs. Time  
Boring E**



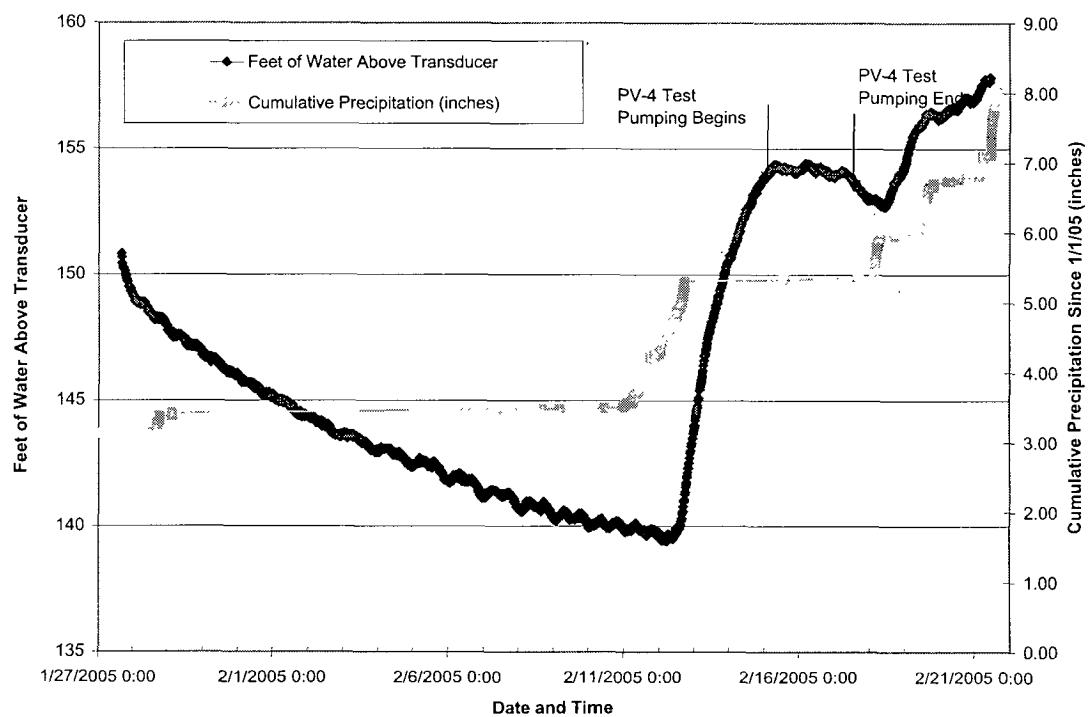
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Corrected Water Height Above Transducer and Cumulative Precipitation Versus Time  
OW-7**



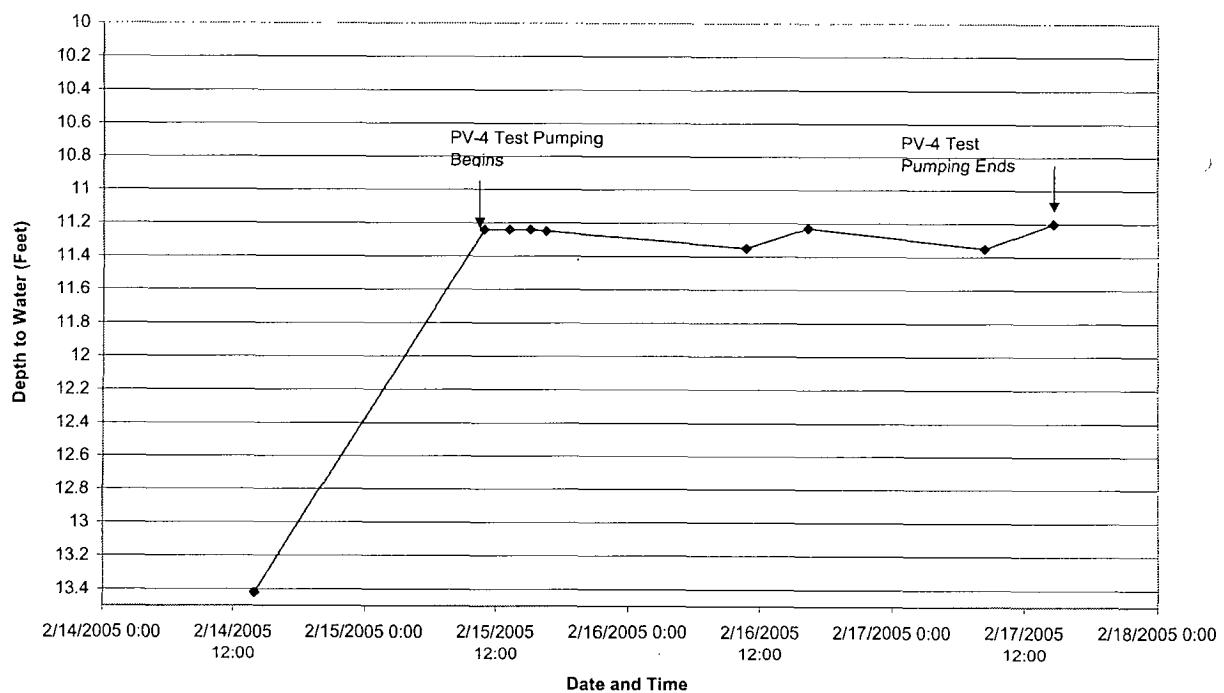
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Corrected Water Height Above Transducer and Cumulative Precipitation Versus Time, Johnson Well**



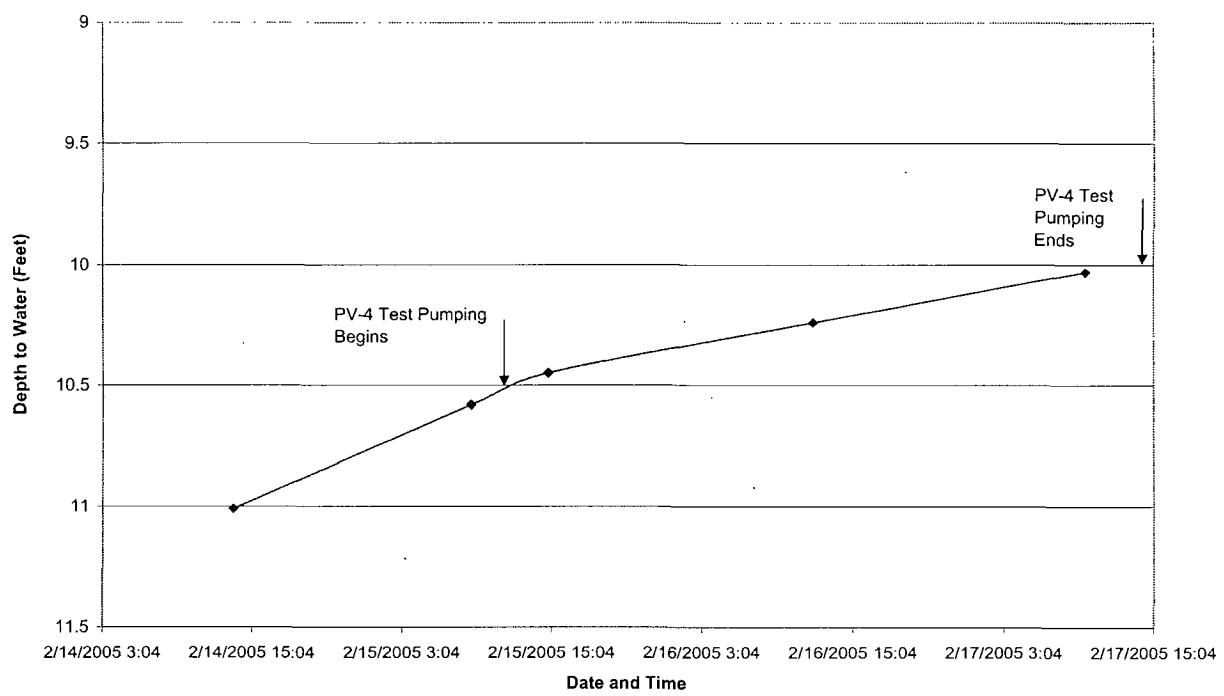
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Depth to Water Vs. Time**  
**Rancho Jamul Ecological Reserve Well**



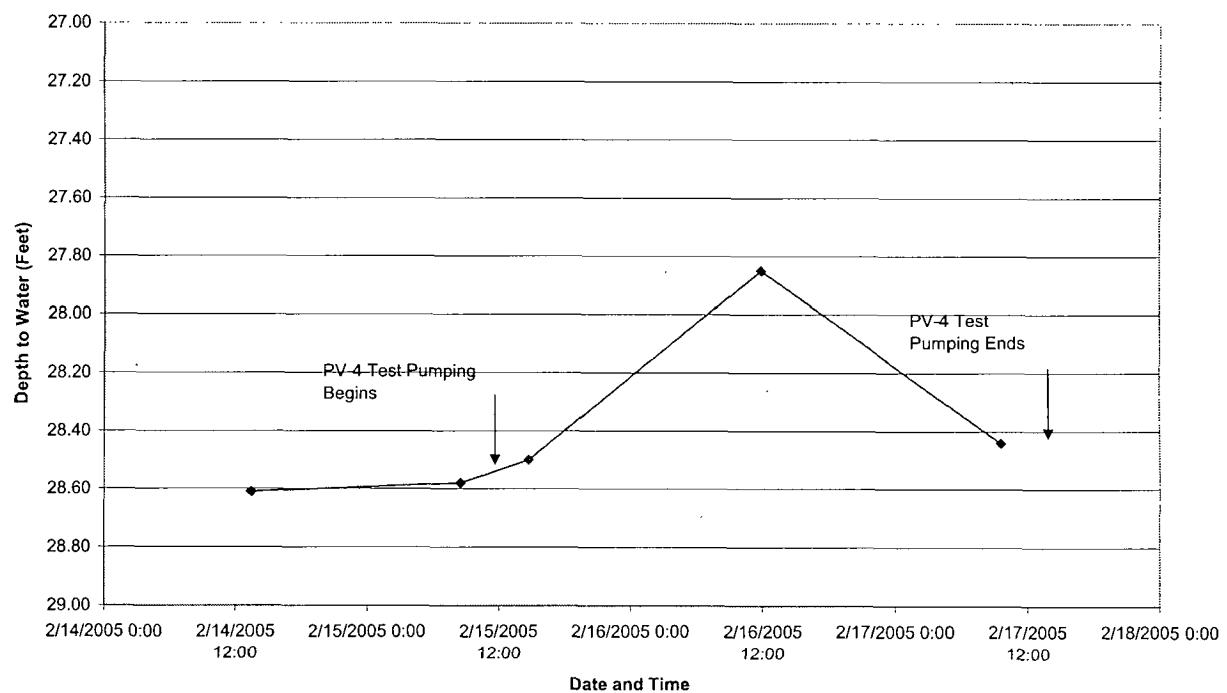
**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Depth to Water Vs. Time**  
**Hollenbeck Canyon Wildlife Refuge Well**



**Wiedlin and Associates, Inc.**  
*Applications in Groundwater Science*

**Depth to Water Vs. Time  
Rancho Jamul Road Well**



**Wiedlin & Associates, Inc.**  
*Applications in Groundwater Science*

**Appendix A-2**  
**Step Drawdown Tests**

**Wiedlin & Associates, Inc.**  
*Applications in Groundwater Science*

Step drawdown tests were conducted at two wells, PV-1 and PV-2, by Earth Tech in 2003 and were analyzed by Wiedlin & Associates, Inc. (W&A). A third step drawdown test was conducted by W&A in October 2004 at well PV-4. The objective of the step drawdown tests were to assess well yield. Transmissivity data were derived from the step drawdown data at PV-1 and PV-2 before the constant discharge test at well PV-4 was conducted. Transmissivity was calculated from the step drawdown data at PV-4 as a means of comparing results with well PV-2. However, the best estimate of transmissivity is derived from the 53-hour constant discharge test conducted at PV-4. Data from this test provides the best measure of aquifer performance because the well is pumped at the highest rate and for the greatest duration than any other test. Therefore, the constant discharge test at PV-4 induced the greatest hydraulic stress on the aquifer than any of the other tests.

PV-1 was tested first and found to have limited production capacity. As a result the test was terminated shortly after the second step, at 20 gallons per minute (gpm) was initiated. Drawdown data from the first step was treated as a constant discharge test and analyzed using the Theis method and the aquifer test software package AquiferWin32 Version 2 (Environmental Simulations, 2001).

PV-2 proved to be a higher yielding well than PV-1 and four pumping steps were successfully completed. Data from Earth Tech's drawdown graph were manually measured and entered into AquiferWin32. Test data were analyzed using the Birsoy-Summers and Eden-Hazel methods of analysis for step drawdown data.

PV-4 also proved to be a high yielding well and four pumping steps were also successfully completed. Test data were analyzed using the Eden-Hazel method for step drawdown data.

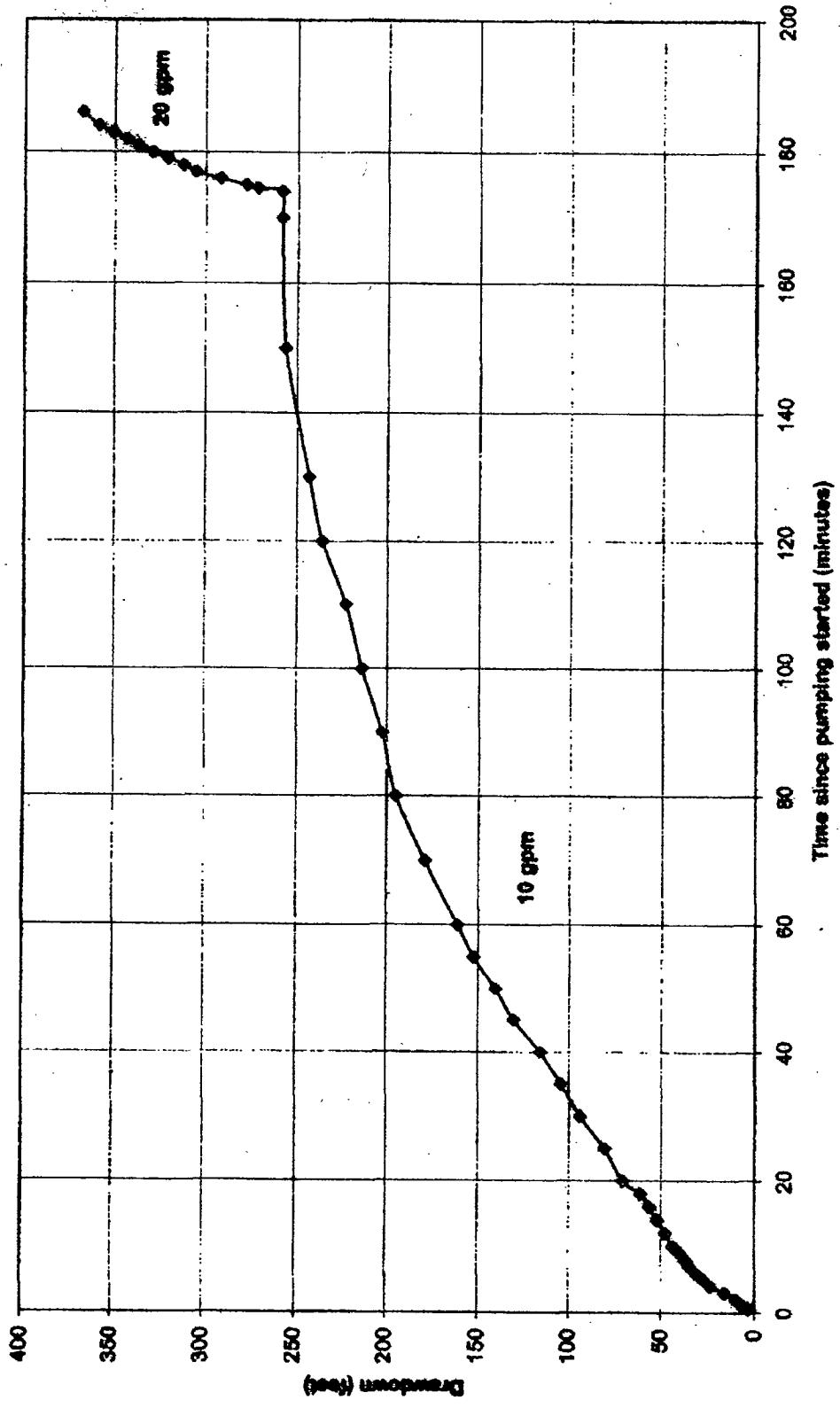
Relevant well data for processing the aquifer test information are compiled along with resultant estimates of transmissivity (Table B-1). Earth Tech's original drawdown charts for each aquifer test are provided along with analytical plots developed from AquiferWin32. For PV-2, plots are presented for both analytical methods and also include predicted drawdown plots based on the derived results.

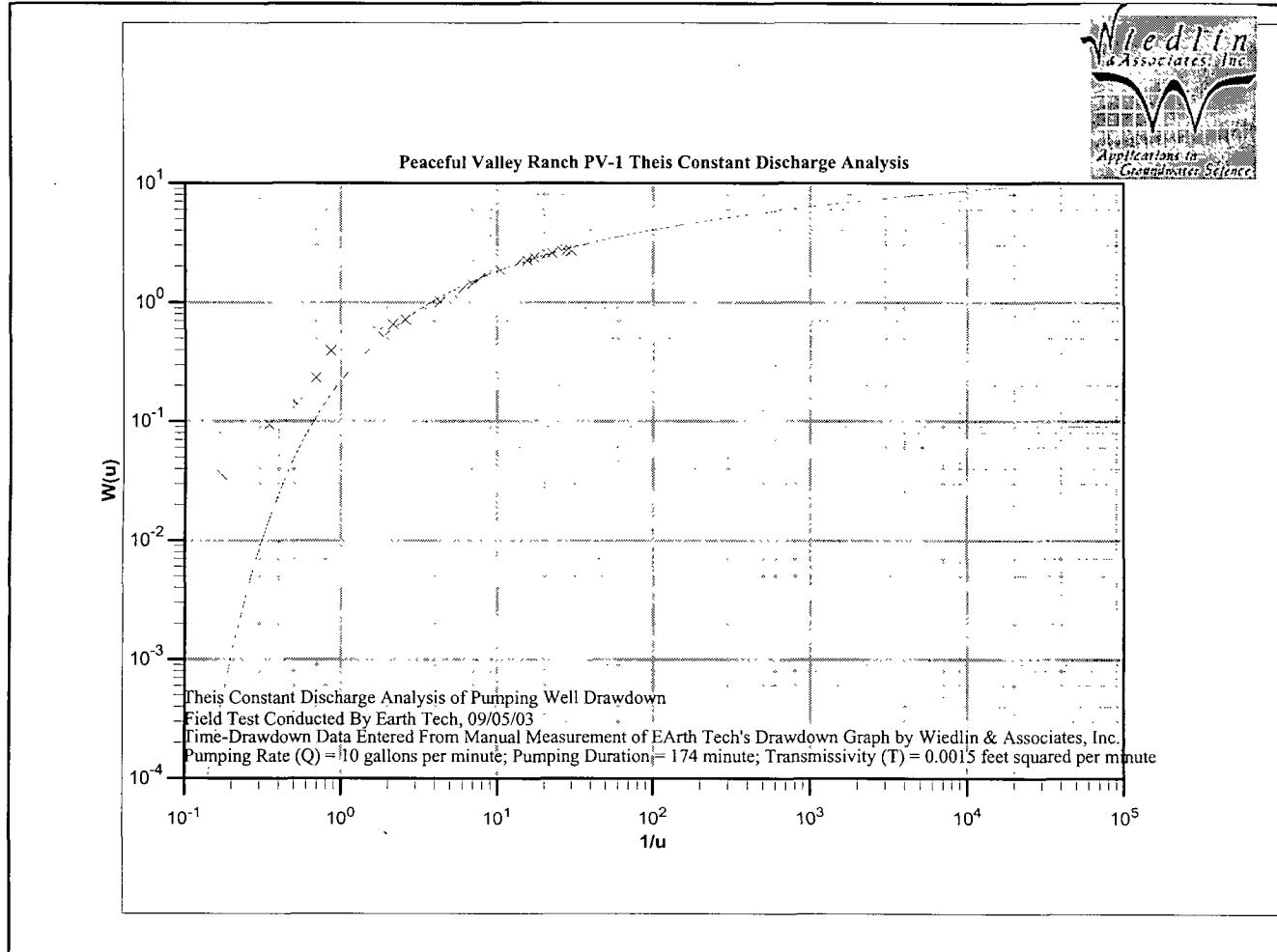
**Wiedlin & Associates, Inc.**  
*Applications in Groundwater Science*

**TABLE B-1**  
**AQUIFER TEST INFORMATION**

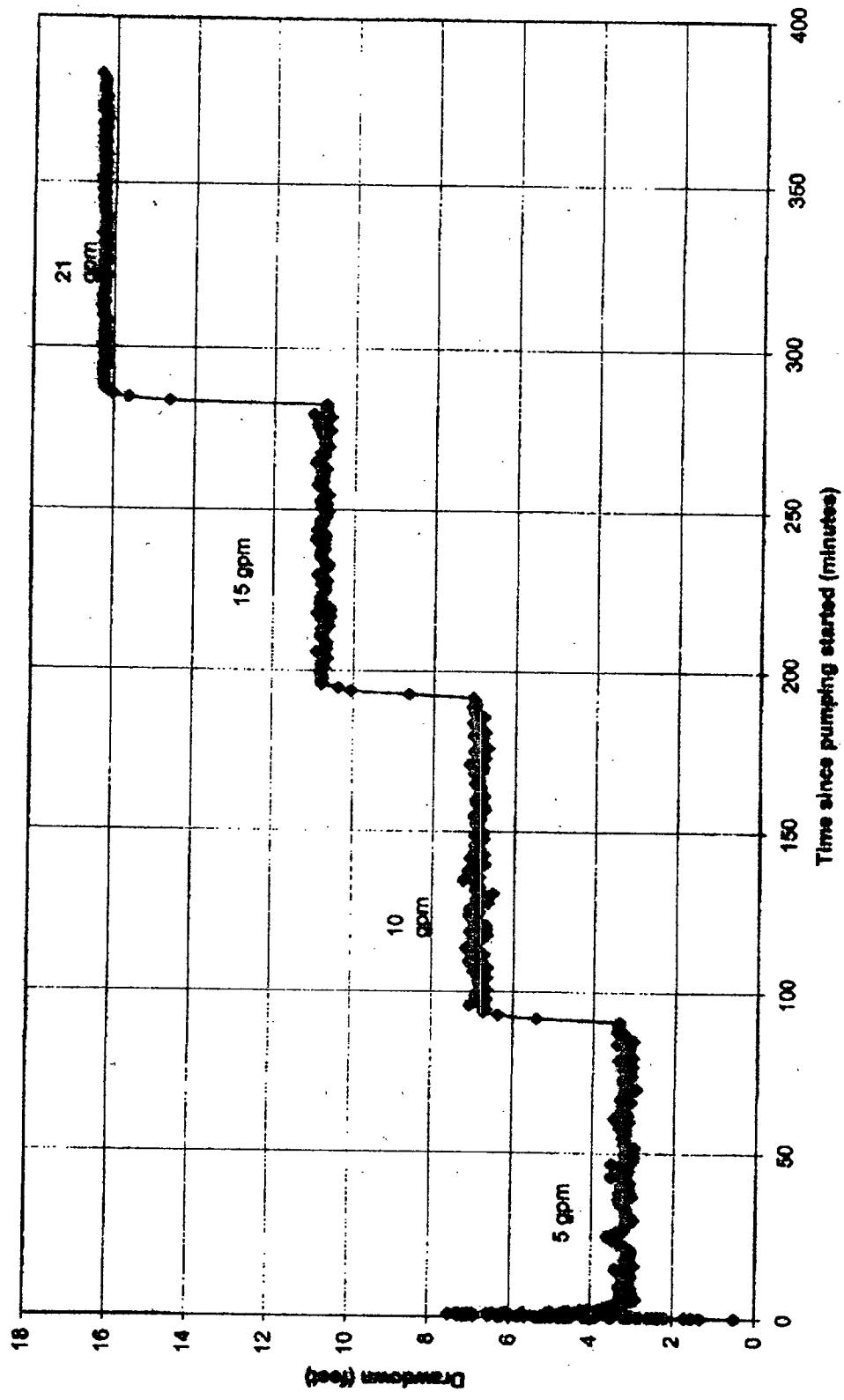
Parameter	PV-1 Theis Analysis	PV-2 Eden Hazel Analysis	PV-4 Eden Hazel Analysis
Well Depth	565	331	136
Static Water Level	27 feet	18 feet	27
Well Diameter	6 inches	6 inches	6 inches
Pumping Rate (gpm)	10	5, 10, 15, 21	16, 30, 47, 65
Transmissivity (ft <sup>2</sup> /min)	0.0015	0.27	1.0

FROM EARTH TECH, INC.  
12/6/03 REPORT TO RRF CONSULTING  
REGARDING PEACEFUL VALLEY RANCH<sup>1</sup> (Doc's Well) Step-Drawdown test



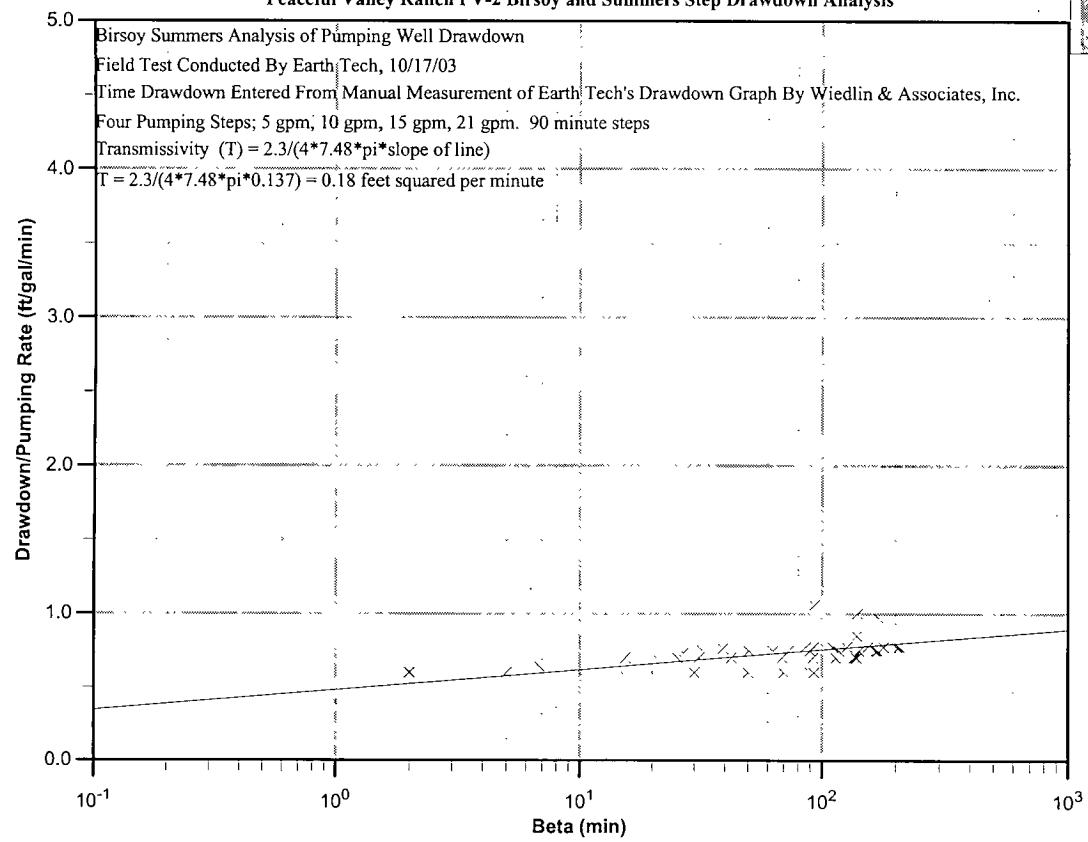


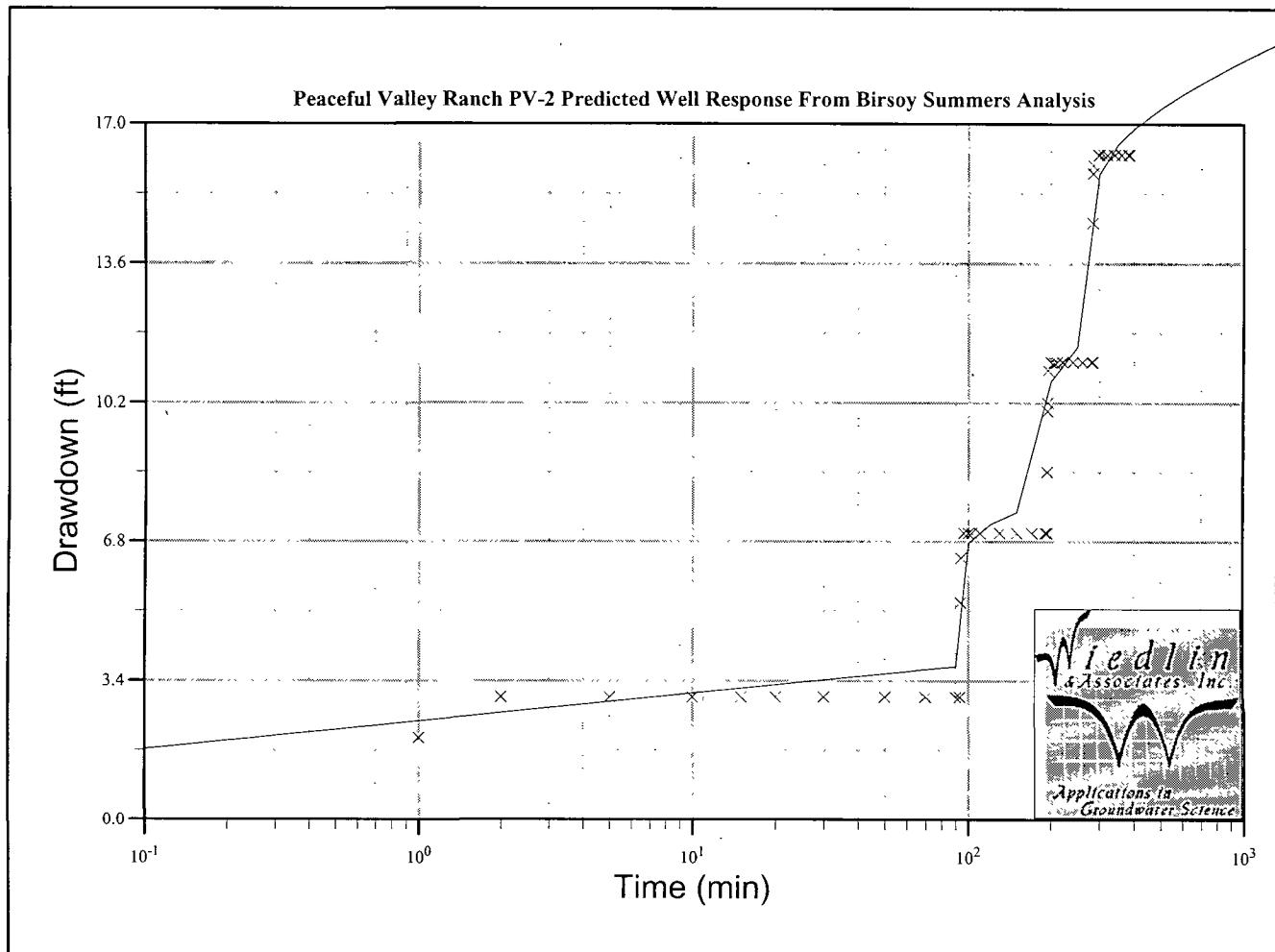
FROM EARTH TECH, INC.  
12/20/03 REPORT TO RBF CONSULTING  
REGARDING PEACEFUL VALLEY RANCH (North Well) Step-Drawdown Test



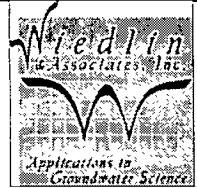
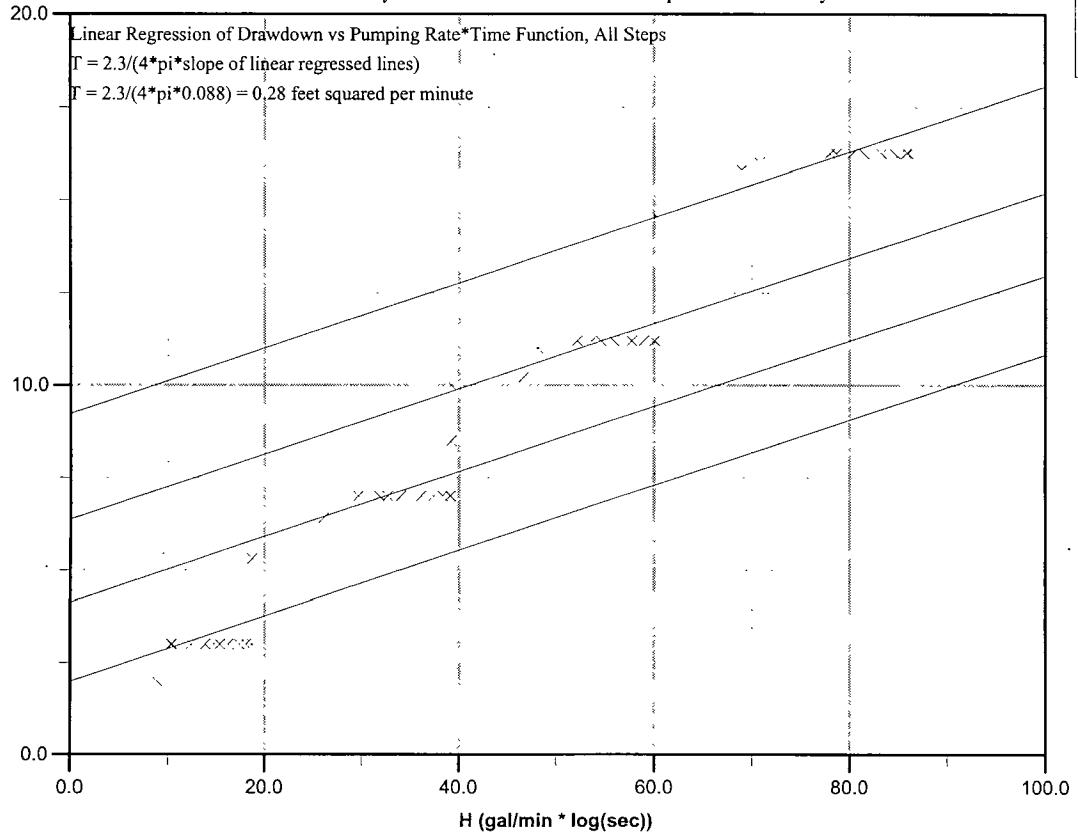


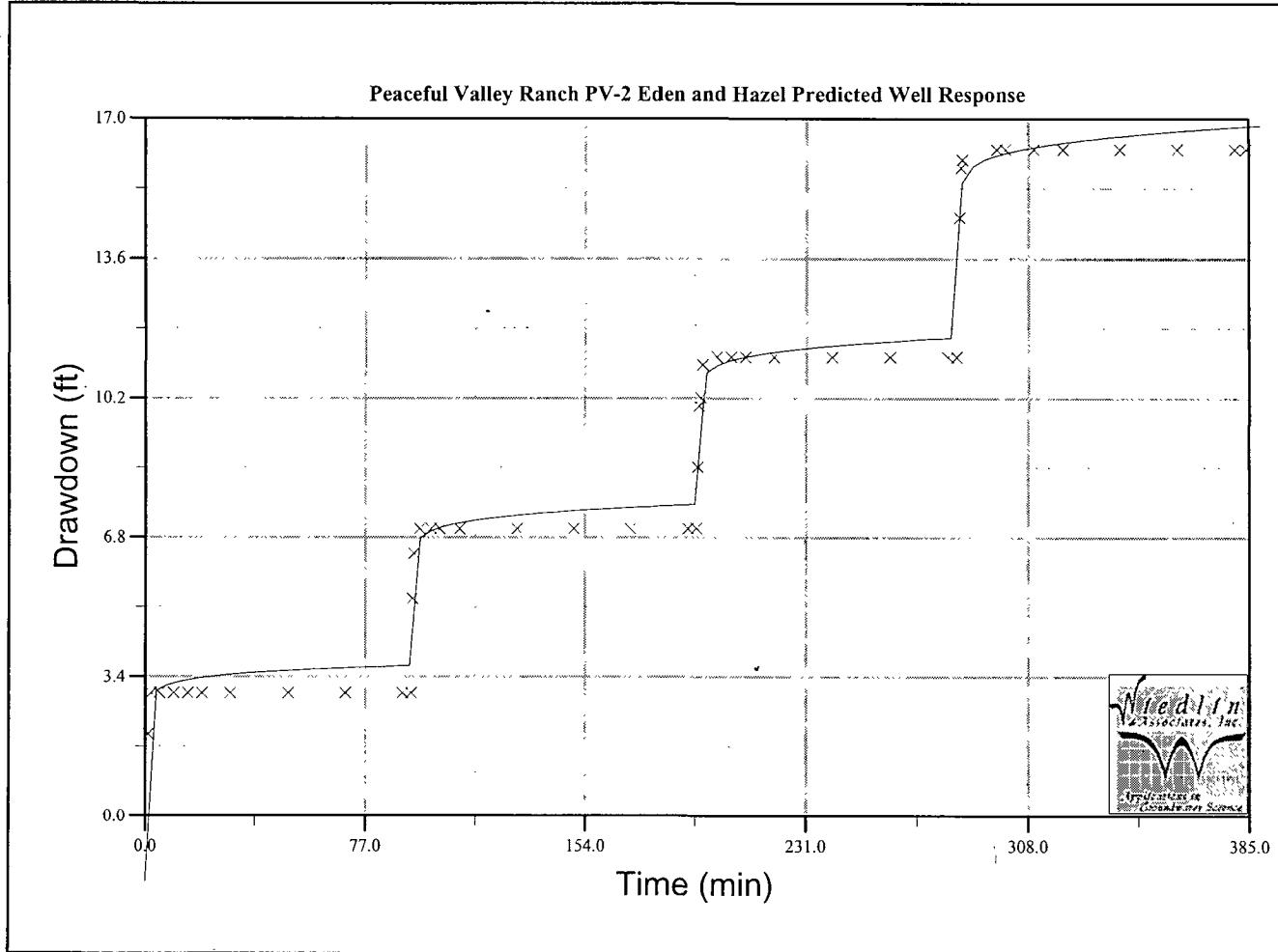
### Peaceful Valley Ranch PV-2 Birsoy and Summers Step Drawdown Analysis

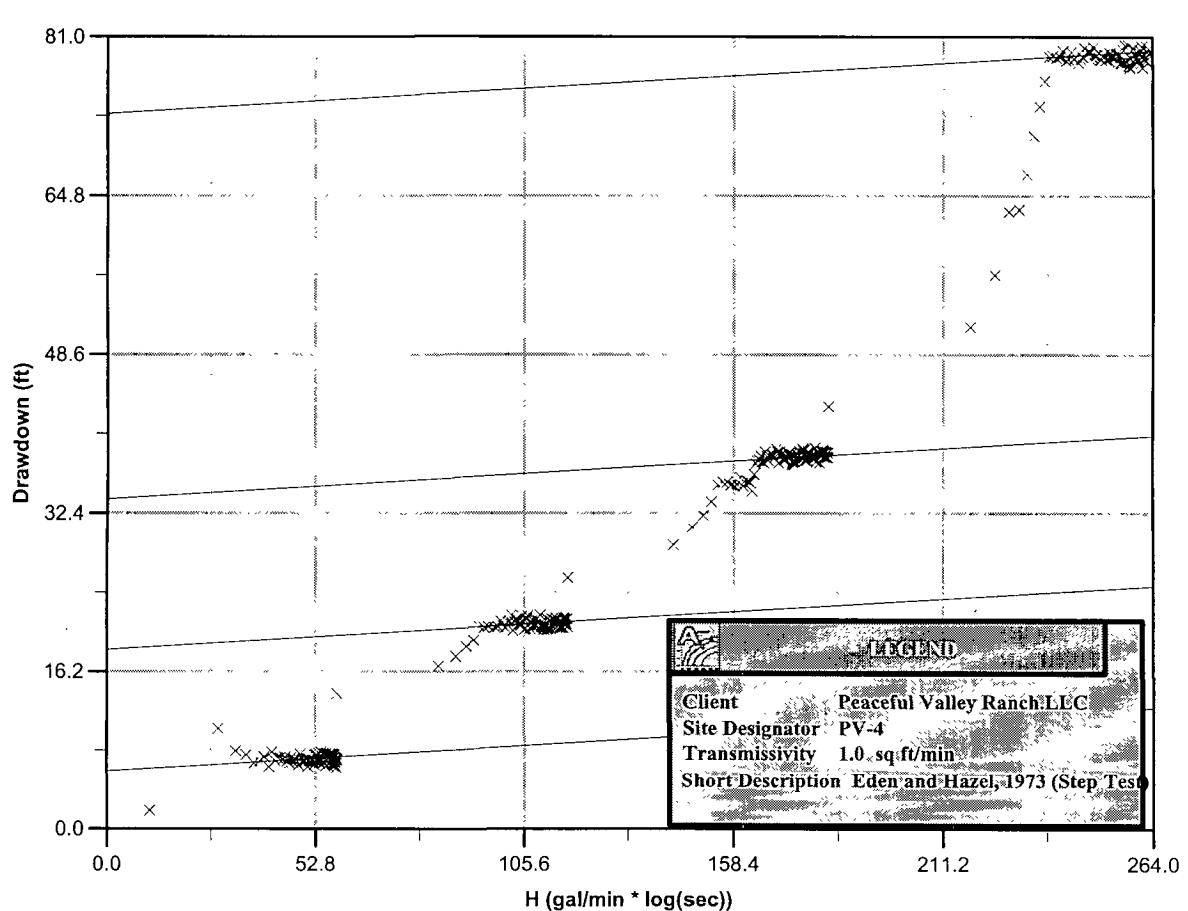




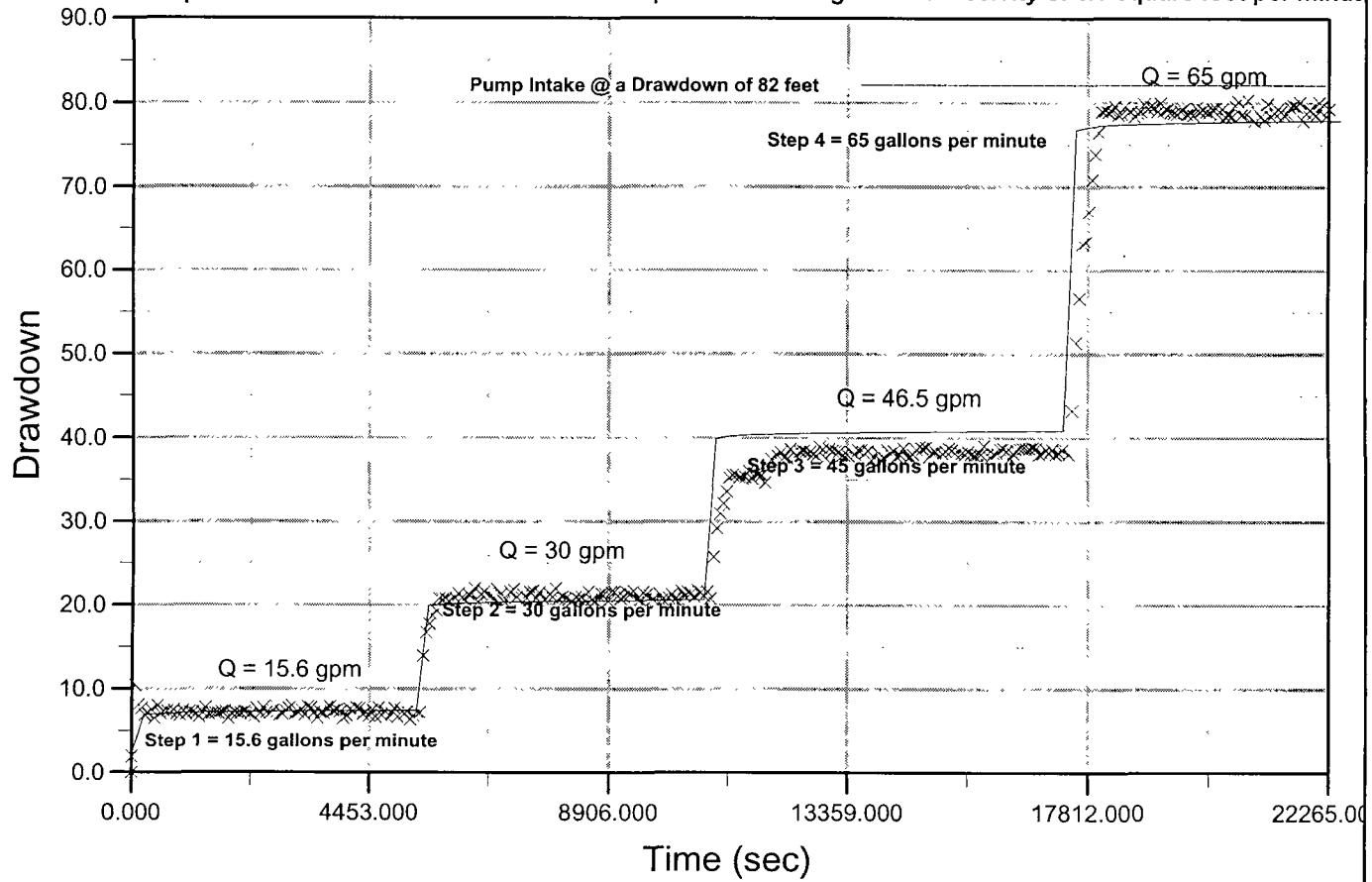
**Peaceful Valley Ranch PV-2 Eden and Hazel Step Drawdown Analysis**







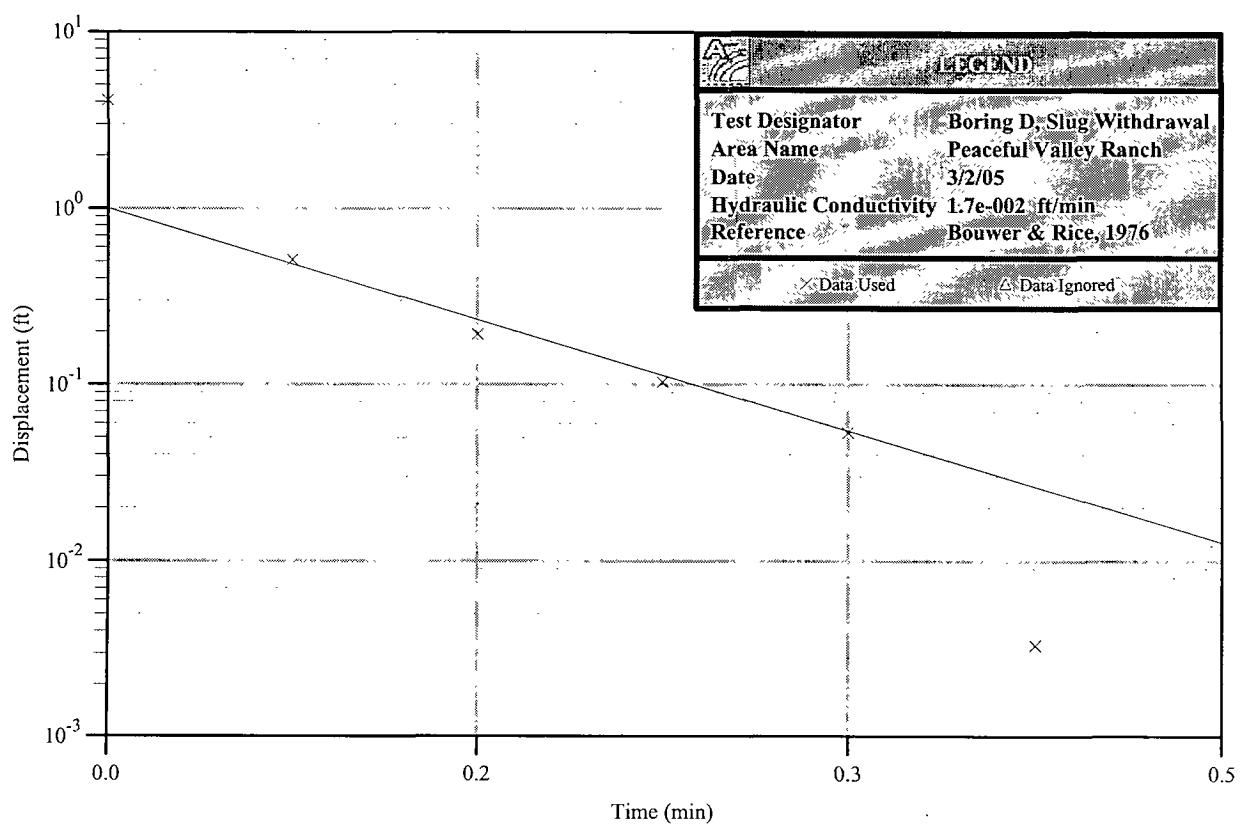
PV-4 Step Drawdown Test Data and Predicted Response Assuming a Transmissivity of 1.0 square foot per minute

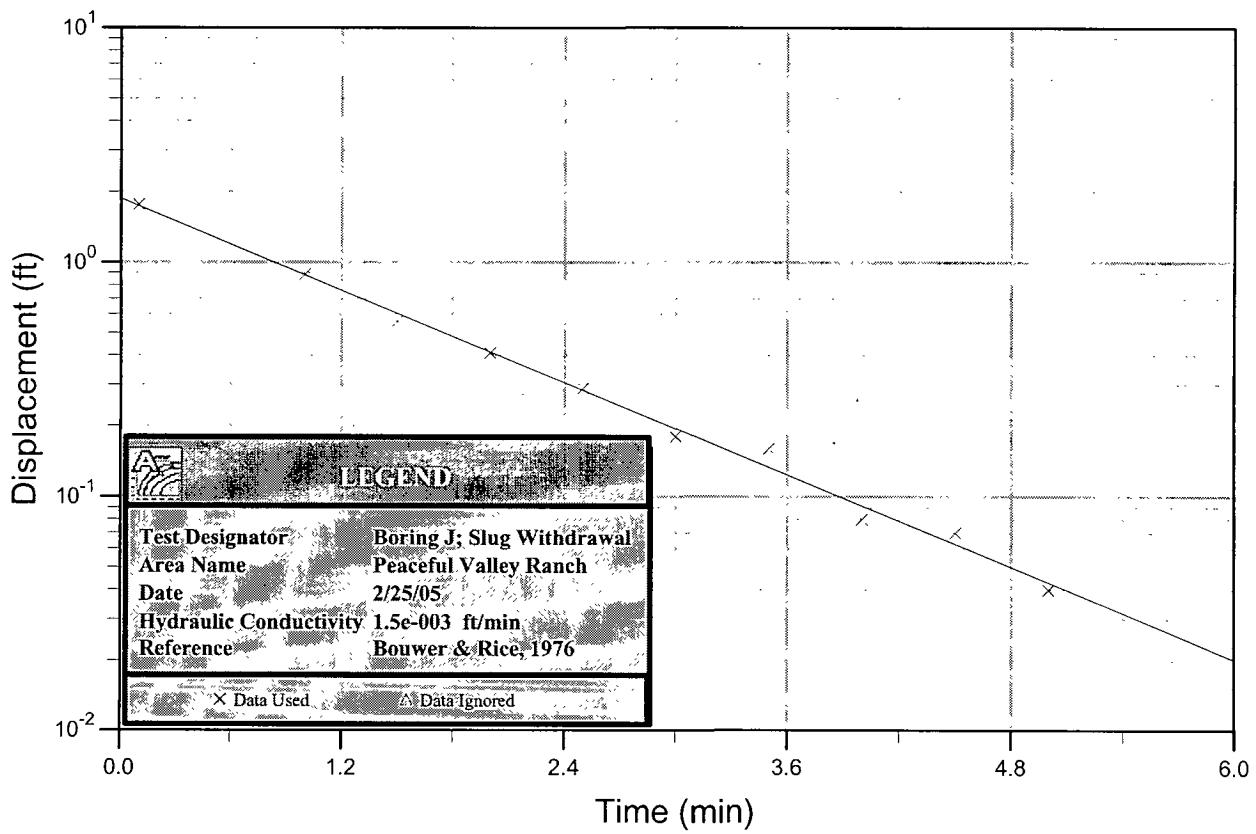


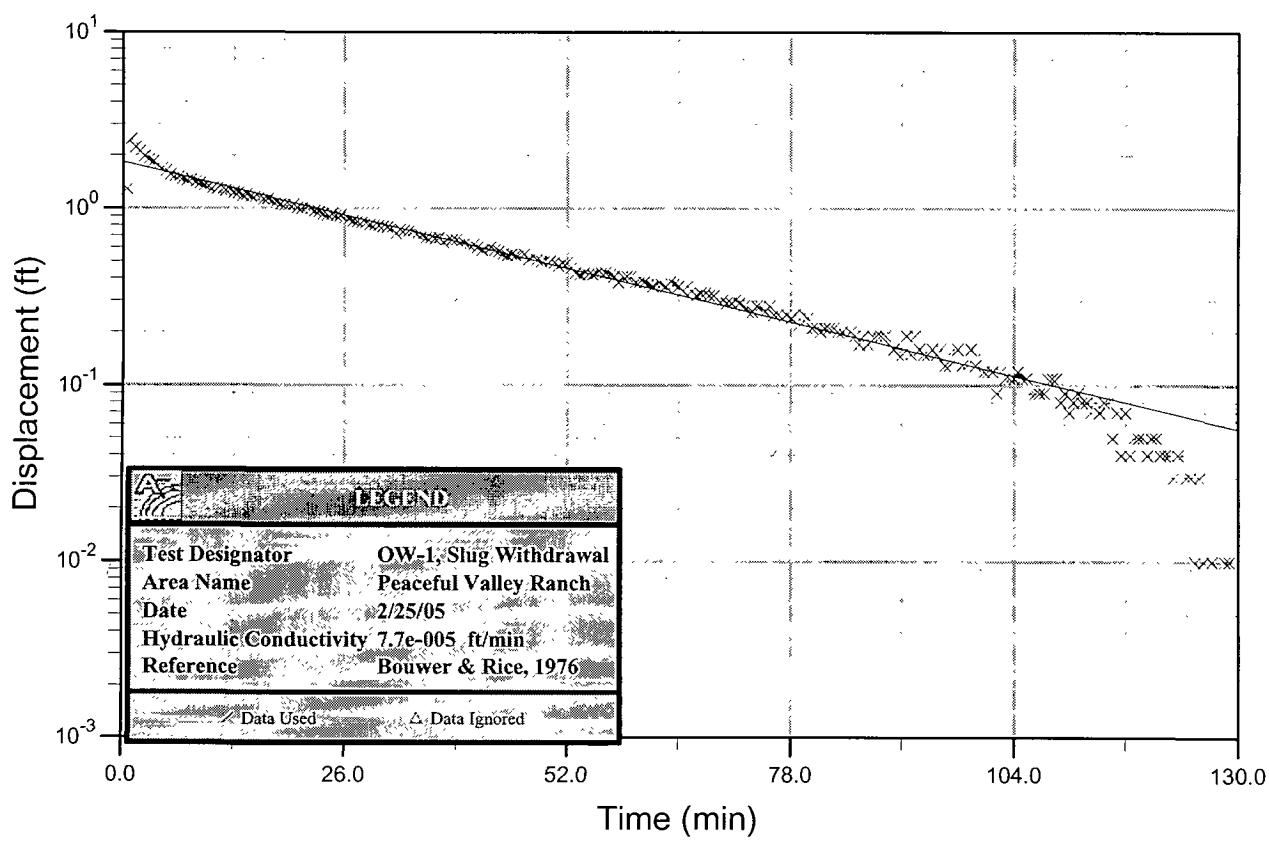
### **Appendix A-3**

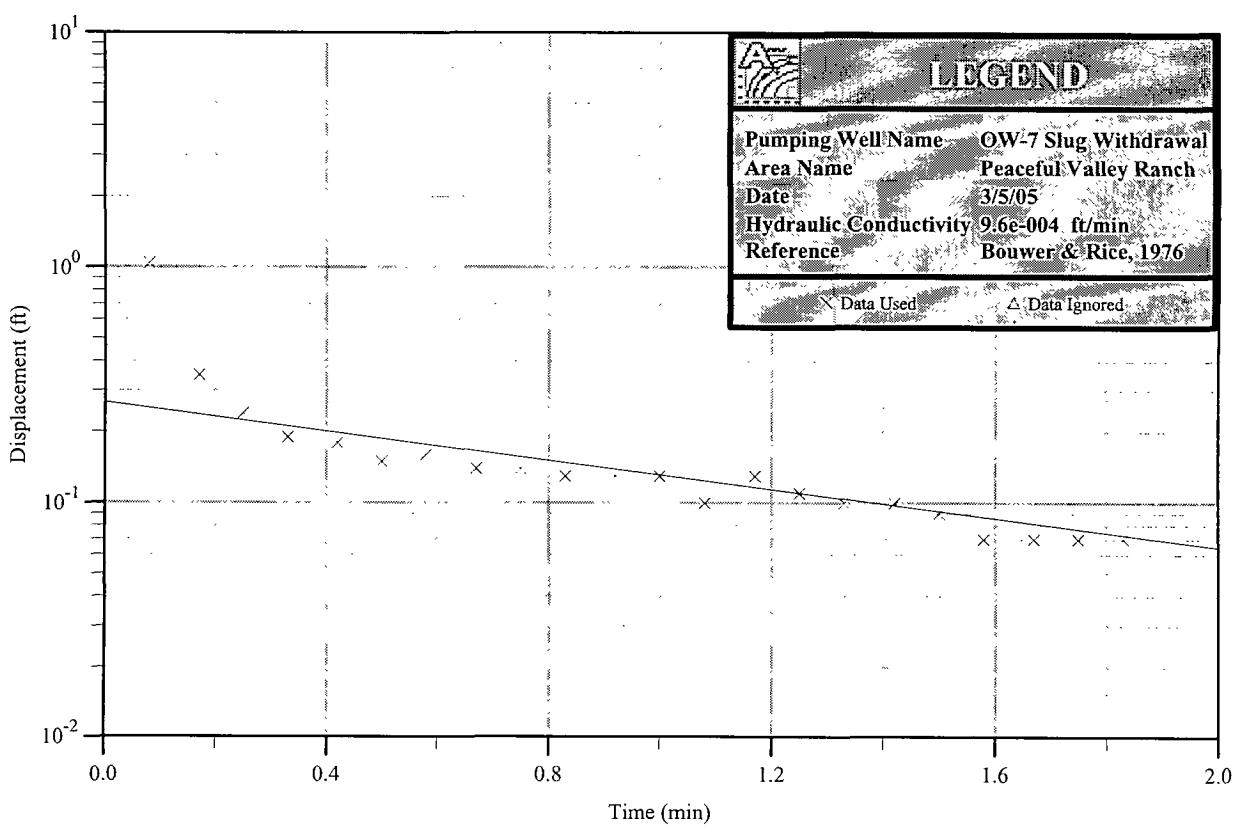
### **Slug Tests**

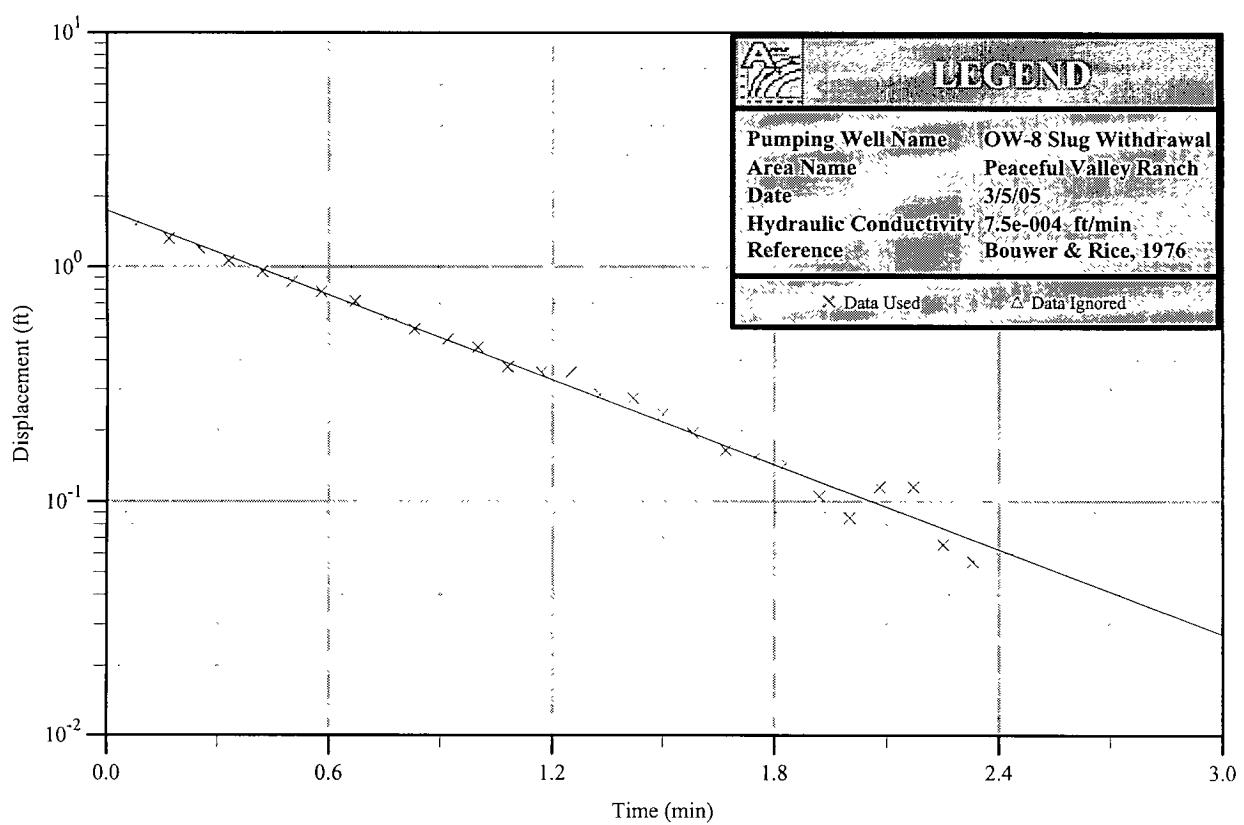
3

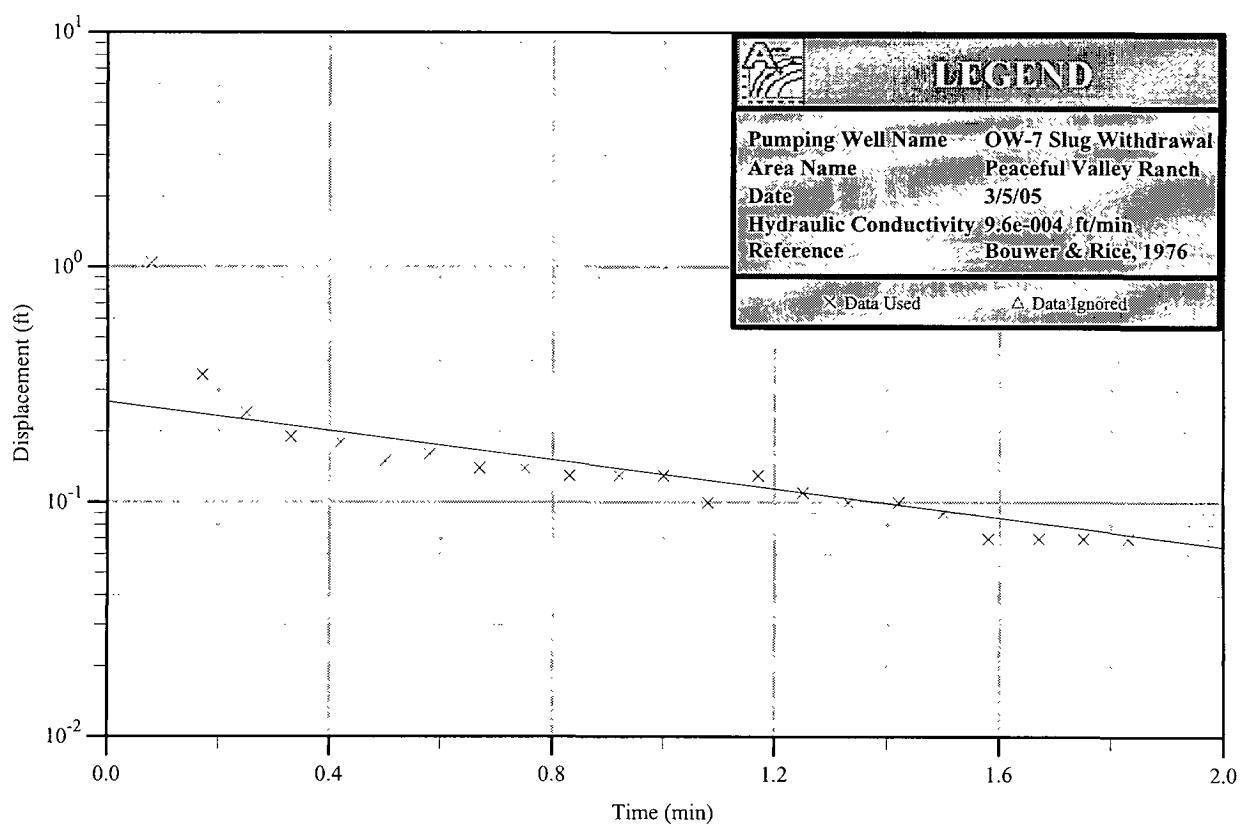


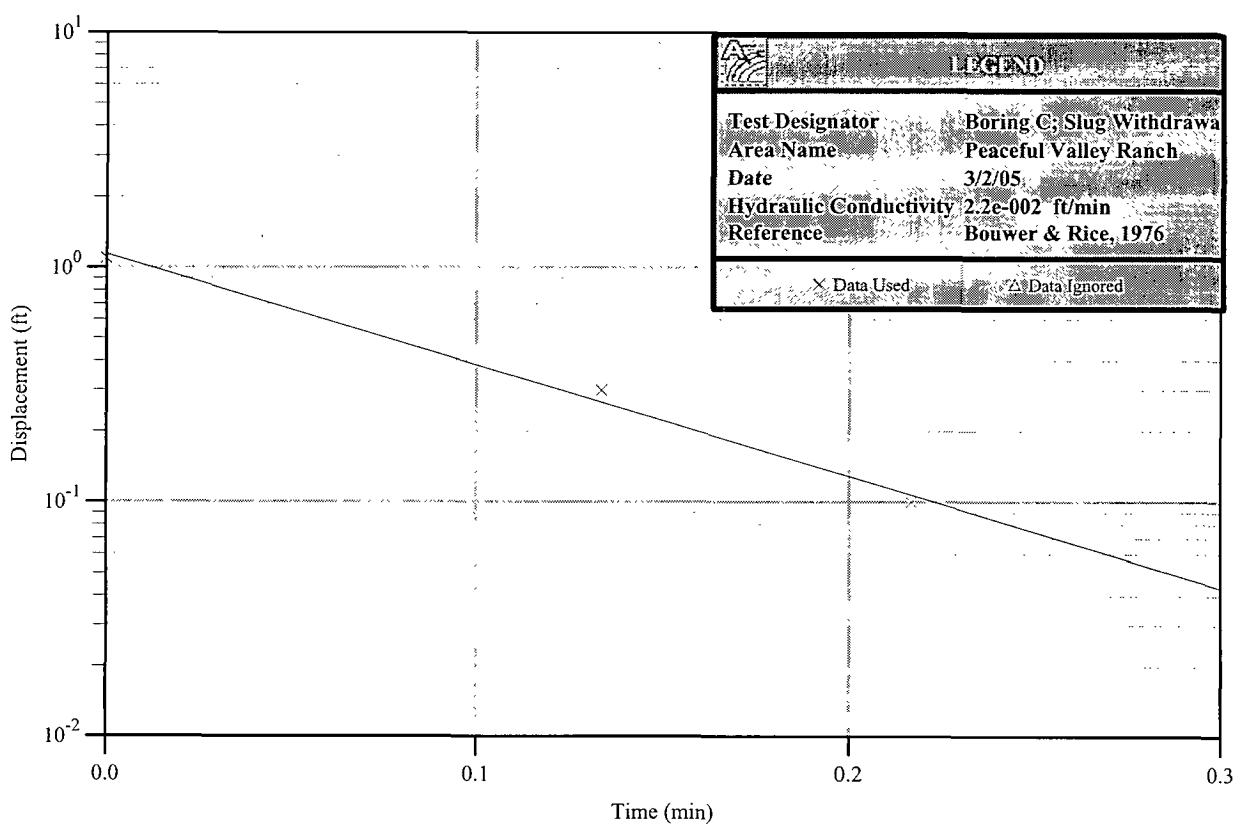


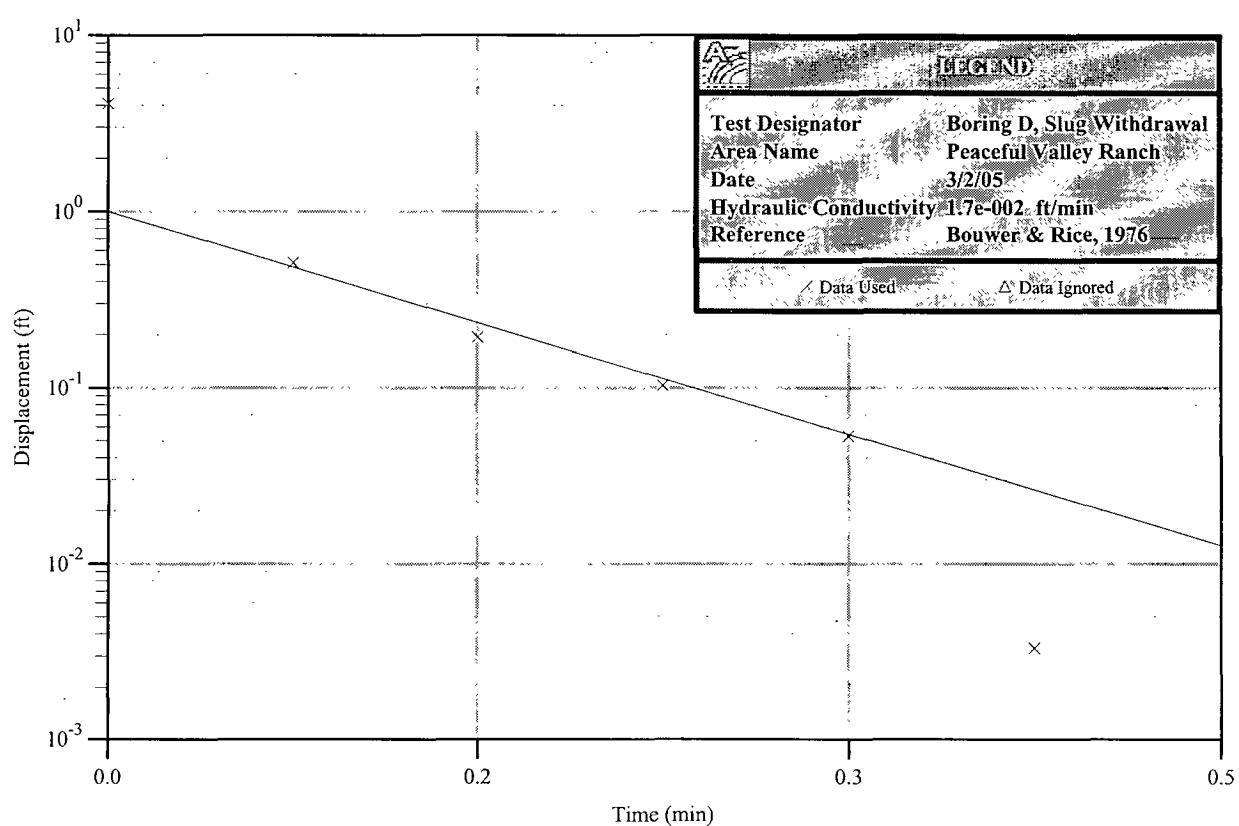


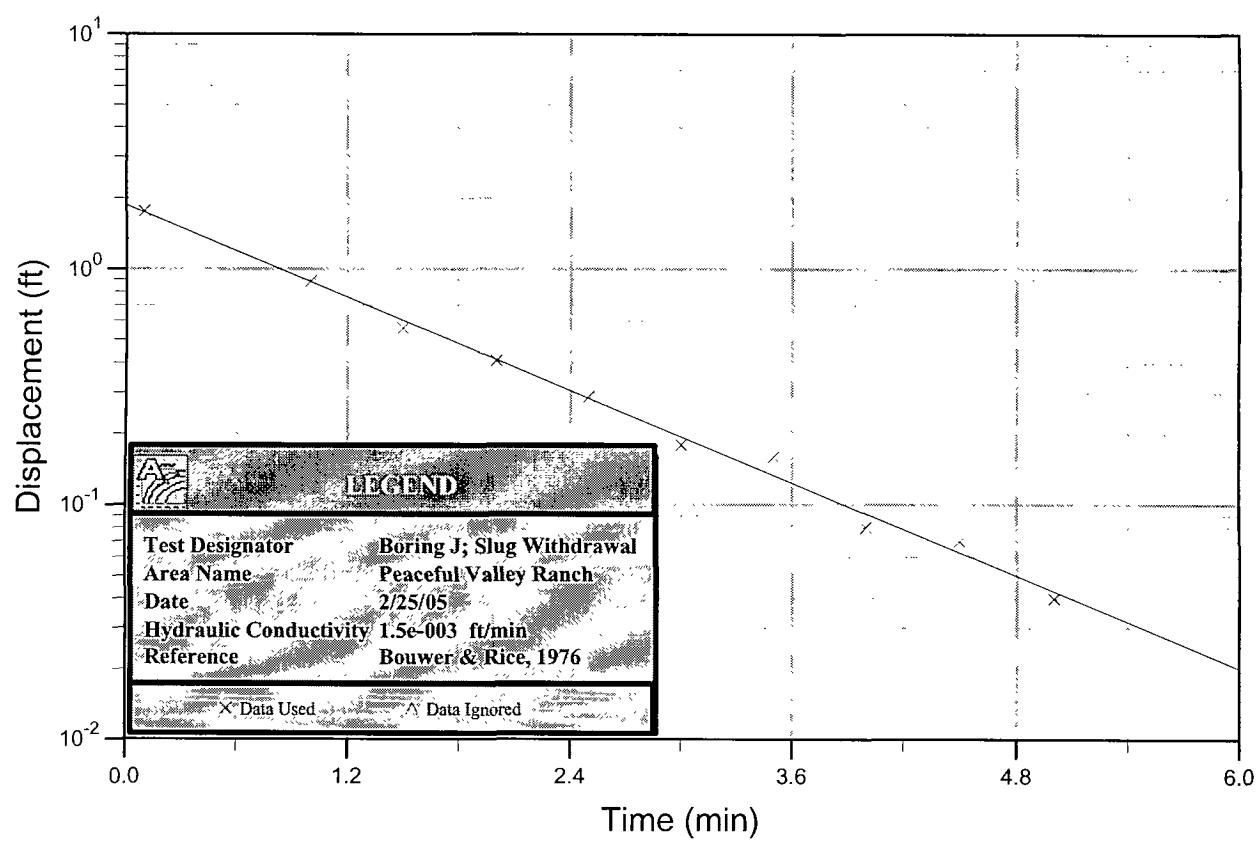


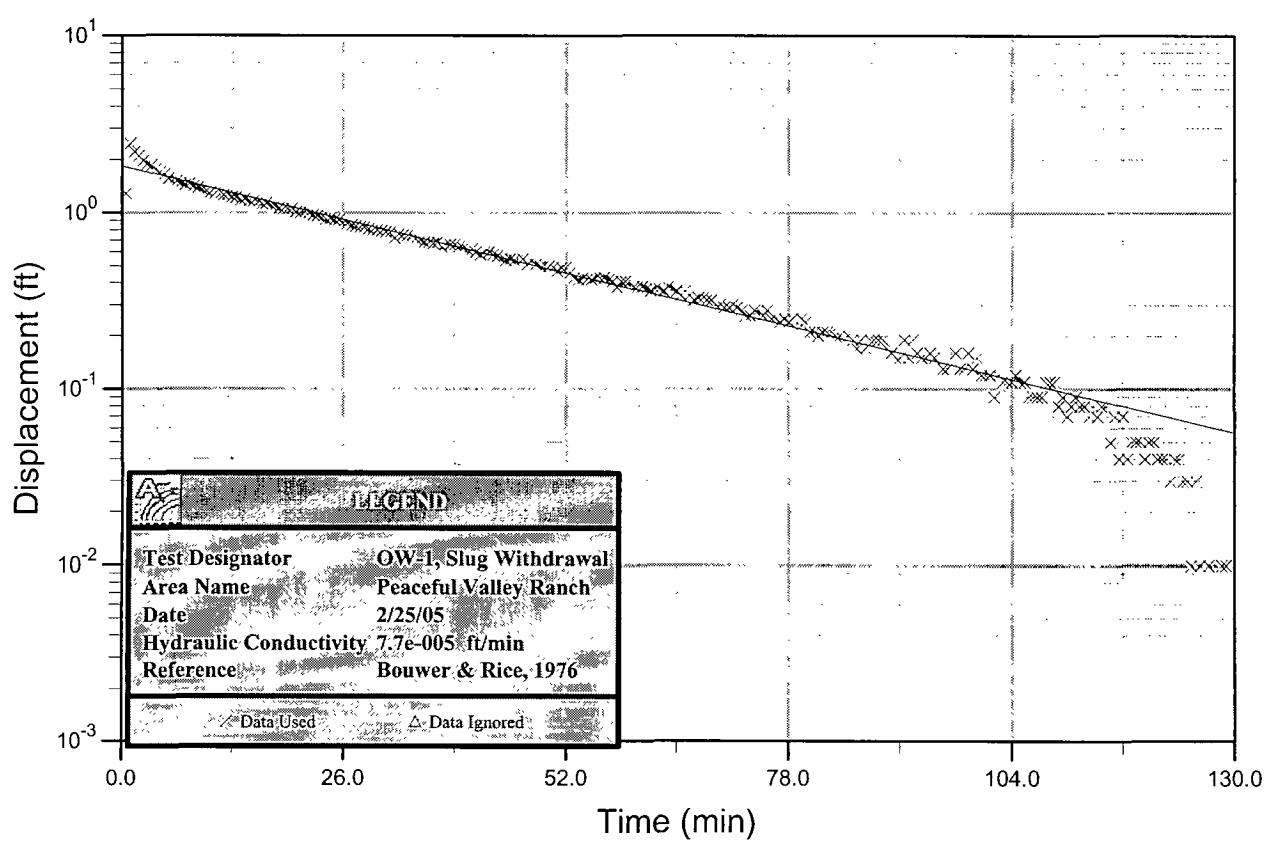


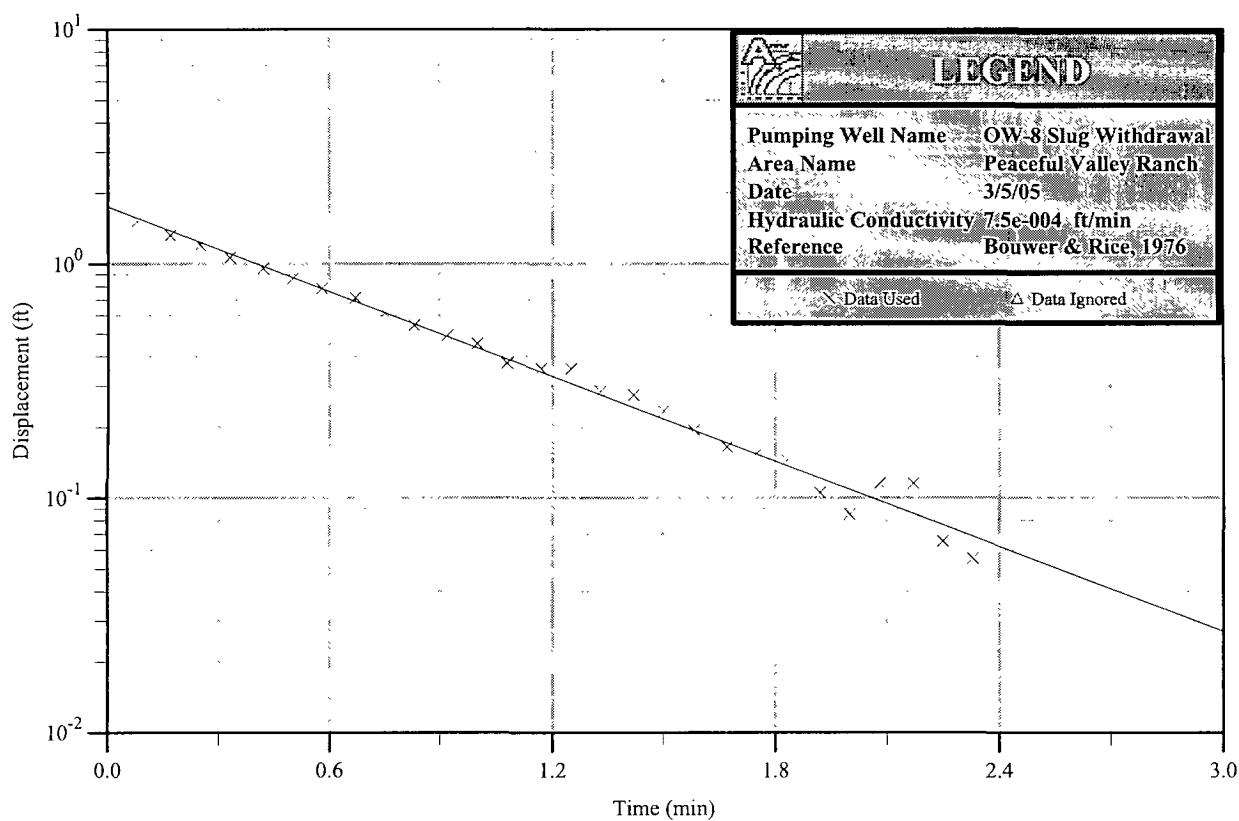












**Appendix A-4**  
**Well Logs**



# VINJE & MIDDLETON ENGINEERING, INC.

June 17, 2004

2450 Vineyard Avenue  
Escondido, California 92029-1229

County of San Diego  
Department of Environmental Health  
Site Assessment and Mitigation Program  
Attention: Well Permitting Desk  
P.O. Box 129261  
San Diego, CA 92112-9261

Phone (760) 743-1214  
Fax (760) 739-0343

## **RE: WELL PERMIT #LMON102295**

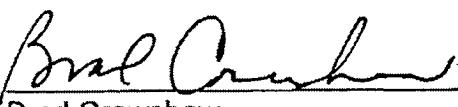
The attached site plan and well logs for seven (7) observations wells were installed at Peaceful Valley Ranch in Jamul, California between June 15 - 16, 2004 under the above referenced permit. The purpose of which was to determine the depth to groundwater and the impacts, if any, of proposed leach field septic systems on groundwater for a planned residential development.

As such, no environmental sampling was conducted. Soil cuttings were not drummed and only minor water was encountered in one observation well (OW-7), therefore, no development water was generated in this work.

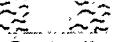
Site Location: Peaceful Valley Ranch Road, Jamul, CA  
Thomas Brothers Page: 1292-J3  
APN: 597-050-13; 597-060-02; 597-070-02; 597-070-07

If you require additional information, please contact me at (760) 743-1214.

**VINJE & MIDDLETON ENGINEERING, INC.**

  
\_\_\_\_\_  
Brad Crawshaw  
Project Manager

JOB #	03-269-S	WELL LOG	WELL I.D.	OW-7
PROJECT NAME/LOCATION:		PEACEFUL VALLEY RANCH / CAMPO RD., JAMUL, CA		
DATE DRILLED:	6/15/04	DRILLING CONTRACTOR:	WEST HAZMAT	
DRILL RIG:	CME 85			
BORING DIAMETER:	.8"	CASING MAT./DIA.	SCREEN:	
		PVC / 2"	TYPE SCH 40 MAT.	PVC LENGTH 10' DIA. 2" SLOT SIZE 0.02
ELEVATION OF: (FT. ABOVE M.S.L.)	TOP OF CASING 858.42'	TOP & BTM OF SCREEN 827.42' & 817.42'	GROUNDWATER SURFACE 818.42'	DATE MEASURED 6/15/04

Depth (ft)	Sample No.	PID Reading (ppm)	Blows/6"	Unified Soil Classification	LOG OF TEST BORING		WELL DESIGN	Description				
					DESCRIPTION	REMARKS						
2				SM	TOPSOIL: Red-brown silty fine sand.			Concrete Seal (3')				
4				SM	Red-brown silty fine sand (D.G.)			Bentonite Slurry Grout				
6				SM	Grey silty medium-coarse sand (D.G.)			Bentonite Chips				
8					Increase density @ 26'			Monterey #3 Sand				
10												
12												
14												
16												
18												
20												
22												
24												
26												
28												
30												
32												
34												
36												
38												
40						1st water @ 40'						
42					End Boring @ 42'		REFUSAL @ 42'					
44												
46												
48												
50												
52												
54												
56												
58												
60												
Vinje & Middleton Engineering, Inc. 2450 Vineyard Avenue Suite 100 Escondido, Ca. 92029-1229 (760) 743-1214 Fax (619) 739-0343		LEGEND:		 Concrete seal		 Bentonite Slurry Grout		 Bentonite Pellets		 0.02" Slot Well Screen		Bentonite Slurry = 60 gallons
										Bentonite Chips = 2 bags		
										Monterey #3 Sand = 4.5 bags		

JOB #	03-269-S	WELL LOG	WELL I.D.	OW-1
PROJECT NAME/LOCATION:		PEACEFUL VALLEY RANCH / CAMPO RD., JAMUL, CA		
DATE DRILLED:	6/15/04	DRILLING CONTRACTOR:	WEST HAZMAT	
		DRILL RIG:	CME 85	
BORING DIAMETER:	8"	CASING MAT./DIA.	SCREEN:	
		PVC / 2"	TYPE SCH 40 MAT. PVC LENGTH 10' DIA. 2" SLOT SIZE 0.02"	
ELEVATION OF: (FT. ABOVE M.S.L.)	TOP OF CASING 918.90'	TOP & BTM OF SCREEN 889.90' & 879.90'	GROUNDWATER SURFACE Not Encountered	DATE MEASURED 6/15/04

JOB # 03-269-S

## WELL LOG

WELL I.D. OW-2

PROJECT NAME/LOCATION:

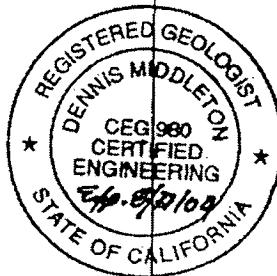
PEACEFUL VALLEY RANCH / CAMPO RD., JAMUL, CA

DATE DRILLED:	6/16/04	DRILLING CONTRACTOR:	WEST HAZMAT
DRILL RIG:	CME 85		
BORING DIAMETER:	8"	CASING MAT./DIA.	SCREEN:
		PVC / 2"	TYPE SCH 40 MAT. PVC LENGTH 10' DIA. 2" SLOT SIZE 0.02"

ELEVATION OF: (FT. ABOVE M.S.L.)	TOP OF CASING	TOP & BTM OF SCREEN	GROUNDWATER SURFACE	DATE MEASURED
	899.88'	879.88' & 869.88'	Not Encountered	6/16/04

Depth (ft)	Sample No.	PID Reading (ppm)	Blows/6"	Unified Soil Classification	LOG OF TEST BORING		WELL DESIGN	Description
					DESCRIPTION	REMARKS		
1				SM	TOPSOIL: Red-brown silty fine sand, dry			Concrete Seal (3')
2								
3								
4				SM	Grey - tan silty medium - coarse sand. Well graded, dry, weathered, (D.G.)			
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15					Increase in mafic mineral content. Uniformly massive.			Bentonite Chips
16								
17								
18								
19								
20								
21								
22								
23								
24								
25					increased drill resistance @ 24.5'			Monterey #3 Sand
26								
27								
28								
29								
30					End Boring @ 30'	No Water Encountered		
Vinje & Middleton Engineering, Inc. 2450 Vineyard Avenue Suite 100 Escondido, Ca. 92029-1229 (760) 743-1214 Fax (619) 739-0343		LEGEND:						
		Concrete seal						
		Bentonite Slurry Grout						
		Bentonite Pellets						
		0.02" Slot Well Screen w/ #3 Sand						
		Bentonite Slurry = 35 gallons						
		Bentonite Chips = 2 bags						
		Monterey #3 Sand = 4.5 bags						



JOB # 03-269-S

# WELL LOG

WELL I.D. OW-3

**PROJECT NAME / LOCATION:**

PEACEFUL VALLEY RANCH / CAMPO RD., JAMUL, CA

DATE DRILLED: 6/16/04

DRILLING CONTRACTOR: WEST HAZMAT  
DRILL RIG: GMF 85

**BORING DIAMETER:**

CASING MAT./DIA. PVC / 2"	SCREEN: TYPE SCH.
------------------------------	----------------------

EL E V A T I O N O F:  
(F T . A B O V E M . S . L . )

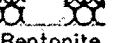
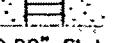
TOP OF CASING      TOP & BTM OF SCREEN      GROUNDWATER SURFACE      DATE MEASURED

100' E OF CR 600' ON SLOPING GROUNDWATER SURFACE DATE MEASURED  
250' E OF CR 600' ON SLOPING GROUNDWATER SURFACE DATE MEASURED

879.37' 859.37' & 849.37' Not Encountered 6/16/04

Digitized by srujanika@gmail.com

Digitized by srujanika@gmail.com

Depth (ft)	Sample No.	PID Reading (ppm)	Blows / 6"	Soil Classification	LOG OF TEST BORING		WELL DESIGN	Description	
					DESCRIPTION				
1				SM/SC	TOPSOIL: Dark brown silty sand w/ trace clay			Concrete Seal (3')	
2									
3									
4				SM	Dark brown silty medium grained sand			Bentonite Slurry Grout	
5									
6									
7									
8									
9									
10				SM	Grey - brown silty medium grained sand (D.G.) Well graded, dry, weathered.			Bentonite Chips	
11									
12									
13									
14									
15									
16									
17					Grades coarse grained @ 17'				
18									
19									
20									
21									
22					increased drill resistance @ 22'				
23									
24									
25									
26									
27									
28									
29									
30									
End Boring @ 31'					 No Water Encountered			Monterey #3 Sand	
Vinje & Middleton Engineering, Inc. 2450 Vineyard Avenue Suite 100 Escondido, Ca. 92029-1229 (760) 743-1214 Fax (619) 739-0343					<b>LEGEND:</b> <ul style="list-style-type: none"> <li> Concrete seal</li> <li> Bentonite Slurry Grout</li> <li> Bentonite Pellets</li> <li> 0.02" Slot Well Screen w/ #3 Sand</li> </ul>		Bentonite Slurry = 35 gallons Bentonite Chips = 2 bags Monterey #3 Sand = 4.5 bags		

JOB # 03-269-S

## WELL LOG

WELL I.D. OW-4

## PROJECT NAME/LOCATION:

PEACEFUL VALLEY RANCH / CAMPO RD., JAMUL, CA

DATE DRILLED:  
6/15/04DRILLING CONTRACTOR: WEST HAZMAT  
DRILL RIG: CME 85BORING DIAMETER:  
8"CASING MAT./DIA.  
PVC / 2"

SCREEN:

TYPE SCH 40 MAT. PVC LENGTH 10' DIA. 2" SLOT SIZE 0.02"

ELEVATION OF:  
(FT. ABOVE M.S.L.)

TOP OF CASING

952.14'

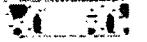
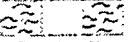
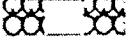
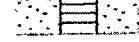
TOP &amp; BTM OF SCREEN

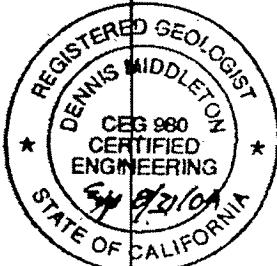
933.14' &amp; 923.14'

GROUNDWATER SURFACE

Not Encountered

DATE MEASURED  
6/15/04

Depth (ft)	Sample No.	P/D Reading (ppm)	Blows/6"	Unified Soil Classification	LOG OF TEST BORING		WELL DESIGN	Description
					DESCRIPTION	REMARKS		
1				SM	TOPSOIL: Red-brown silty fine sand, moist			Concrete Seal (3")
2				SM	Dark brown silty medium grained sand, moist			Bentonite Slurry Grout
3				SM				Bentonite Chips
4				SM/SC	Dark brown silty clayey sand			
5				SM	Grey silty medium-coarse grained sand (D.G.)			
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29						No Water Encountered		
30					End Boring @ 29' Contact w/ Impervious Bedrock	Drill Refusal		Monterey #3 Sand
Vinje & Middleton Engineering, Inc. 2450 Vineyard Avenue Suite 100 Escondido, Ca. 92029-1229 (760) 743-1214 Fax (619) 739-0343					LEGEND:			
					 Concrete seal	 Bentonite Slurry Grout	 Bentonite Pellets	 0.02" Slot Well Screen w/ #3 Sand
								Bentonite Slurry = 35 gallons
								Bentonite Chips = 2 bags
								Monterey #3 Sand = 4.5 bags



JOB # 03-269-S

## WELL LOG

WELL I.D. OW-5

## PROJECT NAME/LOCATION:

PEACEFUL VALLEY RANCH / CAMPO RD., JAMUL, CA

## DATE DRILLED:

6/15/04

DRILLING CONTRACTOR: WEST HAZMAT

DRILL RIG: CME 85

## BORING DIAMETER:

8"

CASING MAT./DIA.

PVC / 2"

SCREEN:

TYPE SCH 40 MAT. PVC LENGTH 10' DIA. 2" SLOT SIZE 0.02"

## ELEVATION OF:

(FT. ABOVE M.S.L.)

TOP OF CASING

932.68'

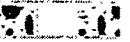
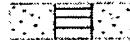
TOP &amp; BTM OF SCREEN

917.68' &amp; 907.68'

GROUNDWATER SURFACE

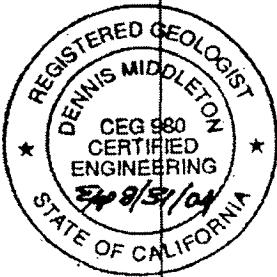
Not Encountered

6/15/04

Depth (ft)	Sample No.	PID Reading (ppm)	Blows/6"	Unified Soil Classification	LOG OF TEST BORING		WELL DESIGN	Description
					DESCRIPTION	REMARKS		
1				SM/SC	TOPSOIL: Red-brown silty fine sand w/ trace clay.			Concrete Seal (3')
2								Bentonite Slurry Grout
3								Bentonite Chips
4								
5				SM	Tan silty medium - coarse sand, weather dry (D.G.)			
6								
7								
8								
9								
10								
11								
12								
13								
14					Grey silty coarse grained sand @ 14'			
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26					End of Boring @ 26' Contact w/ Impervious Bedrock	No Water Encountered <u>Drill Refusal</u>		
27								
28								
29								
30								
Vinje & Middleton Engineering, Inc. 2450 Vineyard Avenue Suite 100 Escondido, Ca. 92029-1229 (760) 743-1214 Fax (619) 739-0343					LEGEND:			
					 	Bentonite Slurry Grout	Bentonite Slurry = 25 gallons	
						0.02" Slot Well Screen w/ #3 Sand	Bentonite Chips = 2 bags	
						Monterey #3 Sand = 4.5 bags		

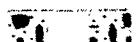
JOB # 03-269-S	WELL LOG		WELL I.D. OW-6	
PROJECT NAME/LOCATION:		PEACEFUL VALLEY RANCH / CAMPO RD., JAMUL, CA		
DATE DRILLED: 6/15/04	DRILLING CONTRACTOR: WEST HAZMAT			
	DRILL RIG: CME 85			
BORING DIAMETER: 8"	CASING MAT./DIA. PVC / 2"	SCREEN: TYPE SCH 40 MAT. PVC LENGTH 10' DIA. 2" SLOT SIZE 0.02		
ELEVATION OF: (FT. ABOVE M.S.L.)	TOP OF CASING 857.75'	TOP & BTM OF SCREEN 837.75' & 827.75'	GROUNDWATER SURFACE Not Encountered	DATE MEASURED 6/15/04

Depth (ft)	Sample No.	PID Reading (ppm)	Blows/6"	Unified Soil Classification	LOG OF TEST BORING		WELL DESIGN	Description
					DESCRIPTION	REMARKS		
1				SM	TOPSOIL: Red-brown silty fine - coarse sand, dry, poorly sorted.			Concrete Seal (3')
2								
3								
4								
5								
6								
7								
8					Lt. brown silty fine sand, dry well sorted.			Bentonite Slurry Grout
9								
10								
11								
12								
13				SM	Grey silty medium - coarse sand (D.G.)			Bentonite Chips
14								
15								
16								
17								
18					increased drill resistance @ 18'			
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30						No Water Encountered		Monterey #3 Sand
					End Boring @ 30'		REFUSAL @ 30'	

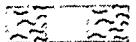


Vinje & Middleton  
Engineering, Inc.  
2450 Vineyard Avenue  
Suite 100  
Escondido, Ca. 92029-1229  
(760) 743-1214  
Fax (619) 739-0343

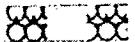
**LEGEND:**



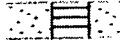
## Concrete seal



Bentonite  
Slurry  
Grout



Bentonite  
Pellets



0.02" Slot  
Well Screen  
w/ #3 Sand

Bentonite Slurry = 30 gallons

Bentonite = 2 bags

#3 Sand



PERMIT #LMON102636  
A.P.N. #597-070-07, 02  
EST # NONE

COUNTY OF SAN DIEGO  
DEPARTMENT OF ENVIRONMENTAL HEALTH  
LAND AND WATER QUALITY DIVISION

MONITORING WELL AND BORING CONSTRUCTION AND DESTRUCTION PERMIT

SITE NAME: PEACEFUL VALLEY RANCH

SITE ADDRESS: 14000 PEACEFUL VALLEY RANCH RD, JAMUL, CA

PERMIT FOR: INSTALL 2 GROUNDDWATER MONITORING WELLS

PERMIT APPROVAL DATE: 10/25/04

PERMIT EXPIRES ON: 02/22/05

RESPONSIBLE PARTY: PVR, LLC

**PERMIT CONDITIONS:**

1. Wells must have a **minimum 3-foot concrete surface seal**. The surface seal shall consist of concrete able to withstand the maximum anticipated load without cracking or deteriorating. The concrete should meet Class A specifications of a minimum 4000-pound compressive strength.
2. All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, E- 4. ([http://www.sdcountry.ca.gov/deh/lwg/sam/manual\\_guidelines.html](http://www.sdcountry.ca.gov/deh/lwg/sam/manual_guidelines.html)). In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.
3. Within 60 days of completing work, submit a well construction report, including all well and/or boring logs and laboratory data to the Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 6 & 7.
4. This office must be given 48-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at 338-2339.

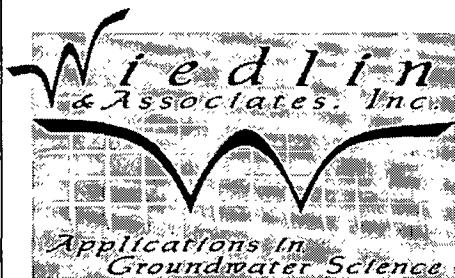
**NOTE:** This permit does not constitute approval of a work plan as defined in Section 2722 of Article 11 of C.C.R., Title 23. Work plans are required for all unauthorized release investigations in San Diego County.

APPROVED BY: Carol Spangenberg \_\_\_\_\_ DATE: 10/25/04  
CAROL SPANGENBERG

NOTIFIED: Carol 10/25/04 AT

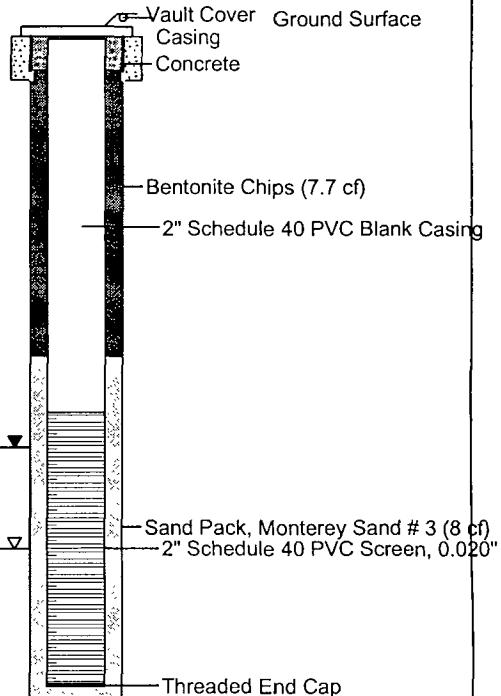
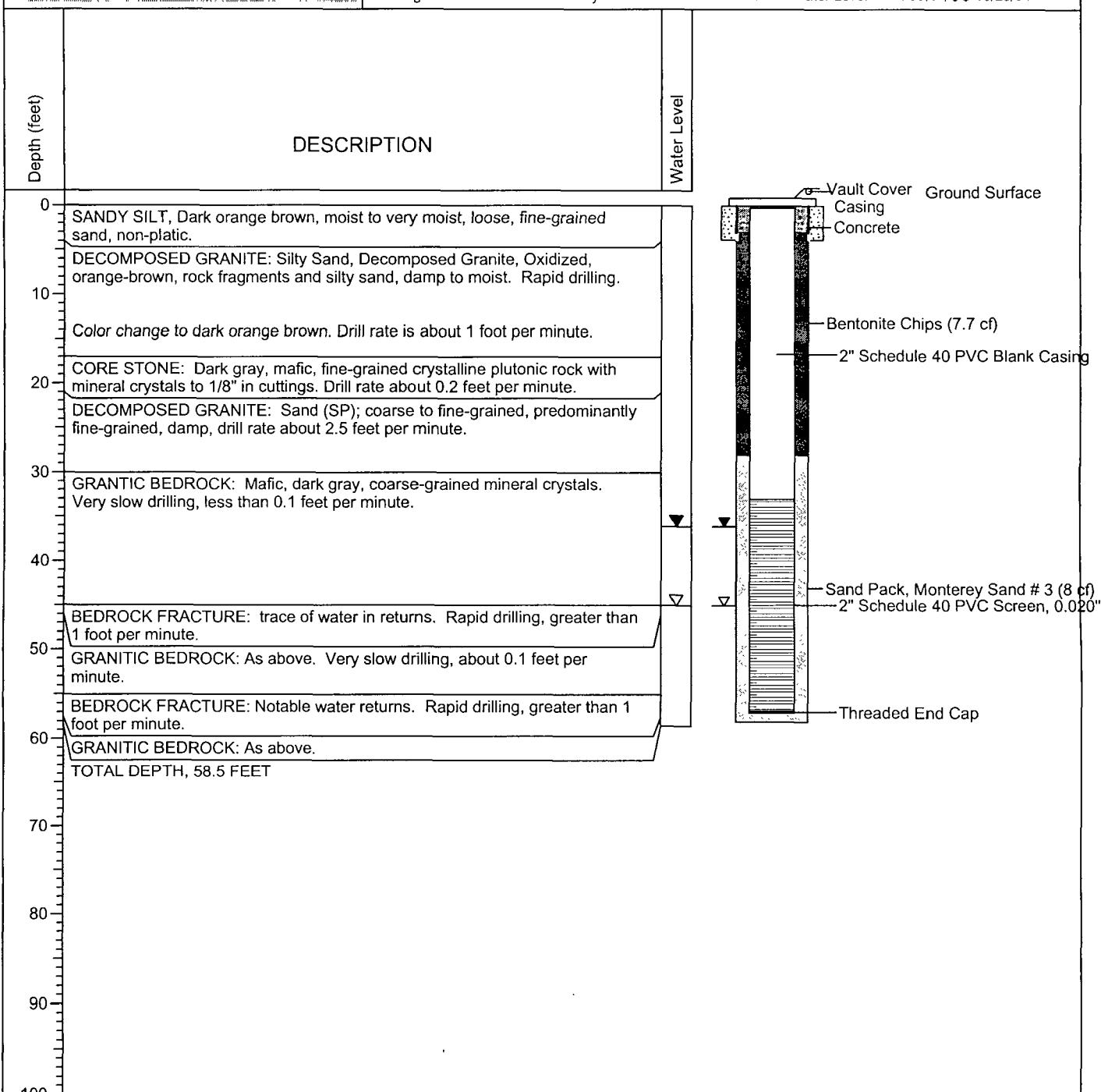
DEH:SAM-9075 (3/04)

Post-it® Fax Note		Date	# of pages ▶
To	M. Wedderburn	From	V. Tracy
Co./Dept.		Co.	
Phone #	858	Phone #	
Fax #	254-1009	Fax #	



## Geologic Log & Well Construction Information For OW-8

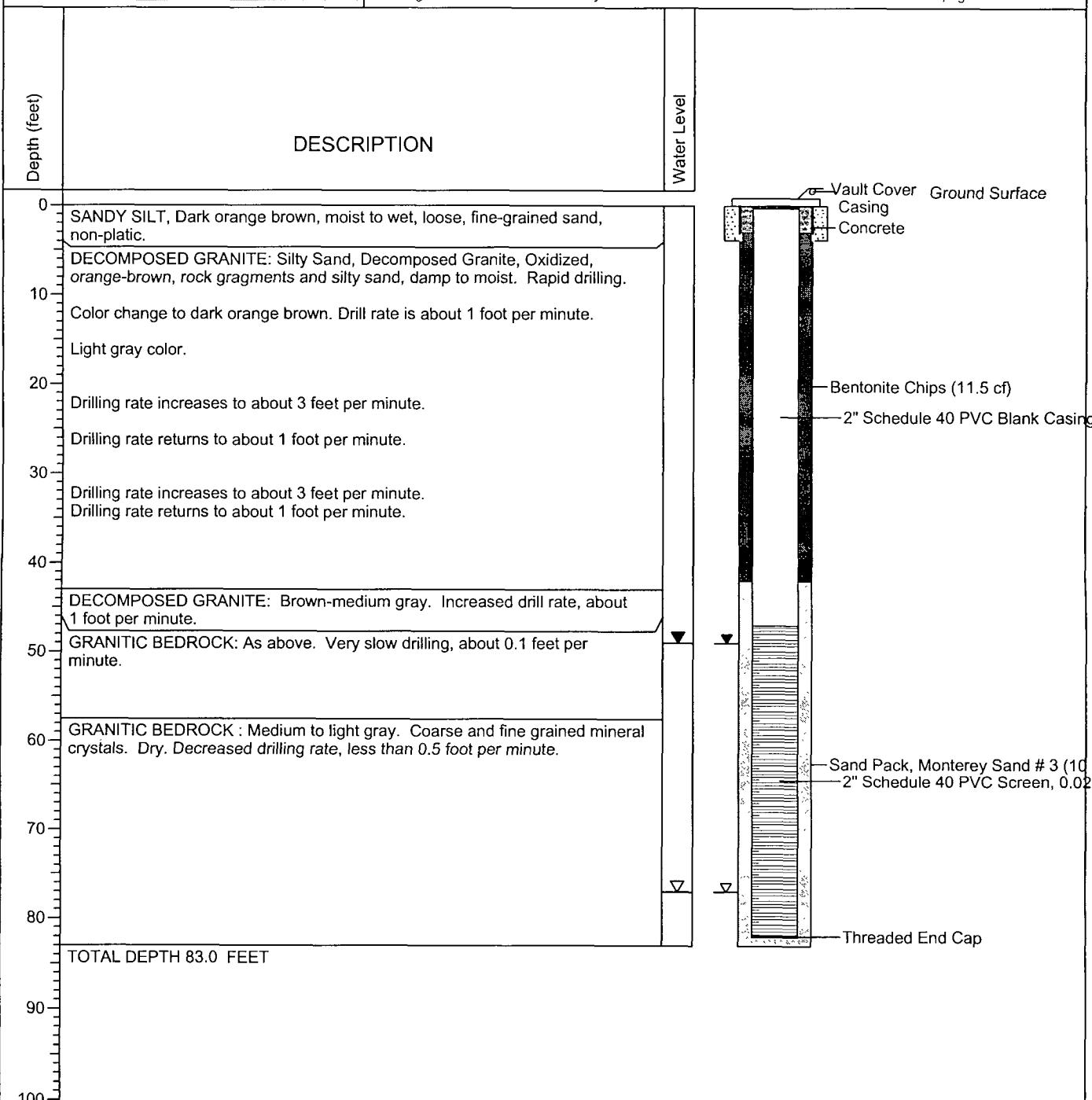
Well No.	: OW-8	Borehole Diameter	: 7-1/2"
Drilling Contractor	: Tri-County Drilling	Ground Elevation	: 861.15 ft, msl
Date Started	: 10/26/04	Top of Casing Elev.	: 861.15 ft, msl
Date Completed	: 10/26/04	Total Depth	: 57.5
Drilling Method	: Air Rotary	Static Water Level	: 36.1 TOC 10/28/04





## Geologic Log & Well Construction Information For OW-9

Well No.	: OW-9	Borehole Diameter	: 7-1/2"
Drilling Contractor	: Tri-County Drilling	Ground Elevation	: 877.74 ft, msl
Date Started	: 10/29/04	Top of Casing Elev.	: 877.74 ft, msl
Date Completed	: 11/1/04	Total Depth	: 82.0
Drilling Method	: Air Rotary	Static Water Level	: 49 ft, bgs



# GDI

- WATER WELL VIDEO INSPECTION
- GEOPHYSICAL LOGGING

GROUNDWATER DATA, INC.  
23945 Old Wagon Road  
Escondido, CA 92027

1-800-351-0508

## GROUNDWATER DATA, Inc

23945 Old Wagon Rd. - Escondido, Ca. 92027  
1 (800) 351-0508 Fax # 751-1560

GDI Log # 04-09008 Date: 9-24-01

Client: PVR LLC

Site: PEACEFUL VALLEY RANCH

WELL #: PV #4 Depth: (150' PER VERTAL)

Casing Diameter / Type: 7" OD TO 24.9"

Static Water Level: 29' W/2' OF TURBINE OIL

Perforation Type: (Cloudy Visibility To)

Location of perfs: (APPROX 60')

39.7' - MEDIUM HORIZONTAL FRACTURE

- SERIES OF SMALL HORIZONTAL

FRACTURES

63.7' - 64.7' BROKEN AREA

Notes: 68.5' - 70.5' LARGE, ROUGH AREA

72.8' - 88.4' ROUNDER BORE HOLE

97.0' - VISIBILITY IS CLEARING UP



105.8' SS FRACTURE AREA WITH DEEP HOLES

106.5' SS SAME

112.7' SS SERIES OF HORIZONTAL FRACTURES

122.1' SS SEAM & START OF TIGHTER FORMATION

— 9:00 O'CLOCK IS A MARK FROM THE  
PUMP COLUMN & BOWLS BEING UP  
AGAINST THE BORE HOLE WALL

134.5' DH CAMERA HAS STOPPED DESCENDING  
& THE LIGHT IS TOUCHING DEBRIS  
& OIL EMULSION AT THE BOTTOM.

136.5' — PRESENT DEPTH \*

<150' ORIGINAL DEPTH PER VERBAL INFO >

\* NOTE: PUMP STRAINER CONE WAS PROBABLY  
IN THE DEBRIS AT THE BOTTOM.

---

EnviroMatrix



Analytical, Inc.

---

19 March 2004

Wiedlin & Associates

Attn: Matt Wiedlin  
4325 Corte de Sausalito  
San Diego, CA 92130

EMA Log #: 0402364

**Project Name:** No Project

Enclosed are the results of analyses for samples received by the laboratory on 02/27/04 15:45. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read "Dan Verdon".  
for  
Dan Verdon  
Laboratory Director

CA ELAP Certification #: 1931

Client Name: Wiedlin & Associates  
Project Name: No Project

EMA Log #: 0402364

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
D	0402364-01	Water	02/27/04 13:45	02/27/04 15:45
E	0402364-02	Water	02/27/04 15:00	02/27/04 15:45

\*Note: Due to laboratory scheduling constraints the nitrite analyses were performed one day outside of the method recommended holding time. Samples were stored at 4 degrees celsius prior to analysis. It is not suspected that results for nitrite would be impacted by the extended holding time. Nitrite analysis is a method requirement for analyzing nitrate in waters. The nitrite contribution is subtracted during the determination of nitrate.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: Wiedlin & Associates  
Project Name: No Project

EMA Log #: 0402364

### Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>D (0402364-01) Water   Sampled: 02/27/04 13:45   Received: 02/27/04 15:45</b>									
Nitrate as N	1.72	0.20	mg/l	4	4031910	03/19/04	03/19/04	SM4500 NO3 E	W-02
pH	7.14	0.10	pH Units	1	4030102	02/27/04	02/27/04	EPA 150.1	
Total Dissolved Solids	373	20	mg/l	"	4031116	03/03/04	03/03/04	SM2540 C	
<b>E (0402364-02) Water   Sampled: 02/27/04 15:00   Received: 02/27/04 15:45</b>									
Nitrate as N	3.92	0.25	mg/l	5	4031910	03/19/04	03/19/04	SM4500 NO3 E	W-02
pH	6.94	0.10	pH Units	1	4030102	02/27/04	02/27/04	EPA 150.1	
Total Dissolved Solids	367	20	mg/l	"	4031116	03/03/04	03/03/04	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: No Project

EMA Log #: 0402364

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 4030102

Duplicate (4030102-DUP1)	Source: 0402353-01			Prepared & Analyzed: 02/27/04				
pH	7.58	0.10	pH Units		7.62		0.5	20
Reference (4030102-SRM1)	Prepared & Analyzed: 02/27/04							
pH	8.89	0.10	pH Units	9.10	98	97-103		

#### Batch 4031116

Duplicate (4031116-DUP1)	Source: 0402340-01			Prepared & Analyzed: 03/03/04				
Total Dissolved Solids	424	20	mg/l		498		16	20
Reference (4031116-SRM1)	Prepared & Analyzed: 03/03/04							
Total Dissolved Solids	261	20	mg/l	276	95	87-113		

#### Batch 4031910

Blank (4031910-BLK1)	Prepared & Analyzed: 03/19/04							
Nitrate as N	ND	0.05	mg/l					
LCS (4031910-BS1)	Prepared & Analyzed: 03/19/04							
Nitrate as N	0.40	0.05	mg/l	0.500	80	80-120		
LCS Dup (4031910-BSD1)	Prepared & Analyzed: 03/19/04							
Nitrate as N	0.41	0.05	mg/l	0.500	82	80-120	2	20
Duplicate (4031910-DUP1)	Source: 0403210-01			Prepared & Analyzed: 03/19/04				
Nitrate as N	3.44	0.25	mg/l		3.44		0	20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: No Project

EMA Log #: 0402364

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 4031910

Matrix Spike (4031910-MS1)	Source: 0403210-01		Prepared & Analyzed: 03/19/04						
Nitrate as N	5.11	0.50	mg/l	5.00	3.44	33	80-120		QM-4X
Matrix Spike Dup (4031910-MSD1)	Source: 0403210-01		Prepared & Analyzed: 03/19/04						
Nitrate as N	5.30	0.50	mg/l	5.00	3.44	37	80-120	4	20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: No Project

EMA Log #: 0402364

### Notes and Definitions

- QM-4X The spike recovery was outside of the QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- W-02 The sample for nitrate analysis was preserved with H<sub>2</sub>SO<sub>4</sub> after the nitrite portion of the analysis was completed to extend the holding time for the sample. Nitrate results are corrected for the nitrite contribution per the method.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**CHAIN-OF-CUSTODY RECORD**



**EnviroMatrix** Analytical, Inc. —

4340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7717 • Fax (858) 560-7763

EMA DATE/TIME STAMP

\*EMA reserves the right to return samples that do not match our waste profile.

---

**EnviroMatrix**



**Analytical, Inc.**

---

29 June 2004

Wiedlin & Associates

Attn: Matt Wiedlin

4325 Corte de Sausalito

San Diego, CA 92130

**EMA Log #: 0406245**

**Project Name: Peaceful Valley 170**

Enclosed are the results of analyses for samples received by the laboratory on 06/21/04 15:15. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

  
for: **Dan Verdon**  
**Laboratory Director**

CA ELAP Certification #: 1931

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406245

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PV-2 Well 1	0406245-01	Water	06/21/04 09:00	06/21/04 15:15
"J"	0406245-02	Water	06/21/04 11:25	06/21/04 15:15
OW-7	0406245-03	Water	06/21/04 13:00	06/21/04 15:15
Turbine Well (PV-4) <i>(new)</i>	0406245-04	Water	06/21/04 14:22	06/21/04 15:15

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406245

### Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PV-2 Well 1 (0406245-01) Water</b> Sampled: 06/21/04 09:00 Received: 06/21/04 15:15									
Nitrate as N	8.36	0.50	mg/l	10	4062804	06/25/04	06/25/04	SM4500 NO3 E	W-02
Total Dissolved Solids	1140	20	"	1	4062513	06/26/04	06/28/04	SM2540 C	
<b>"J" (0406245-02) Water</b> Sampled: 06/21/04 11:25 Received: 06/21/04 15:15									
Nitrate as N	0.57	0.50	mg/l	10	4062804	06/25/04	06/25/04	SM4500 NO3 E	W-02
Total Dissolved Solids	1520	20	"	1	4062513	06/26/04	06/28/04	SM2540 C	
<b>OW-7 (0406245-03) Water</b> Sampled: 06/21/04 13:00 Received: 06/21/04 15:15									
Nitrate as N	9.47	0.50	mg/l	10	4062804	06/25/04	06/25/04	SM4500 NO3 E	W-02
Total Dissolved Solids	912	20	"	1	4062513	06/26/04	06/28/04	SM2540 C	
<b>PV-4 Well (0406245-04) Water</b> Sampled: 06/21/04 14:22 Received: 06/21/04 15:15									
Nitrate as N	13.0	1.00	mg/l	20	4062804	06/25/04	06/25/04	SM4500 NO3 E	W-02
Total Dissolved Solids	1000	20	"	1	4062513	06/26/04	06/28/04	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406245

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-------

#### Batch 4062513

Blank (4062513-BLK1)					Prepared: 06/26/04	Analyzed: 06/28/04			
Total Dissolved Solids	ND	20	mg/l						
Duplicate (4062513-DUP1)		Source: 0406269-01			Prepared: 06/26/04	Analyzed: 06/28/04			
Total Dissolved Solids	643	20	mg/l	602			7	20	

Reference (4062513-SRM1)					Prepared: 06/26/04	Analyzed: 06/28/04			
Total Dissolved Solids	260	20	mg/l	284		92	90-110		

#### Batch 4062804

Blank (4062804-BLK1)					Prepared & Analyzed: 06/25/04				
Nitrate as N	ND	0.05	mg/l						
LCS (4062804-BS1)					Prepared & Analyzed: 06/25/04				
Nitrate as N	0.49	0.05	mg/l	0.500		98	80-120		
LCS Dup (4062804-BSD1)					Prepared & Analyzed: 06/25/04				
Nitrate as N	0.50	0.05	mg/l	0.500		100	80-120	2	20
Duplicate (4062804-DUP1)		Source: 0406251-01			Prepared & Analyzed: 06/25/04				
Nitrate as N	11.0	1.25	mg/l	13.2			18	20	
Matrix Spike (4062804-MS1)		Source: 0406245-02			Prepared & Analyzed: 06/25/04				
Nitrate as N	1.60	0.10	mg/l	1.00	0.57	103	80-120		
Matrix Spike Dup (4062804-MSD1)		Source: 0406245-02			Prepared & Analyzed: 06/25/04				
Nitrate as N	1.60	0.10	mg/l	1.00	0.57	103	80-120	0	20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406245

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 4062513

Blank (4062513-BLK1)					Prepared: 06/26/04	Analyzed: 06/28/04				
Total Dissolved Solids	ND	20	mg/l							
Duplicate (4062513-DUP1)		Source: 0406269-01			Prepared: 06/26/04	Analyzed: 06/28/04				
Total Dissolved Solids	643	20	mg/l		602			7	20	

#### Reference (4062513-SRM1)

Reference (4062513-SRM1)					Prepared: 06/26/04	Analyzed: 06/28/04				
Total Dissolved Solids	260	20	mg/l	284		92	90-110			

#### Batch 4062804

Blank (4062804-BLK1)					Prepared & Analyzed: 06/25/04					
Nitrate as N	ND	0.05	mg/l							
LCS (4062804-BS1)					Prepared & Analyzed: 06/25/04					
Nitrate as N	0.49	0.05	mg/l	0.500		98	80-120			
LCS Dup (4062804-BSD1)					Prepared & Analyzed: 06/25/04					
Nitrate as N	0.50	0.05	mg/l	0.500		100	80-120	2	20	
Duplicate (4062804-DUP1)		Source: 0406251-01			Prepared & Analyzed: 06/25/04					
Nitrate as N	11.0	1.25	mg/l		13.2			18	20	
Matrix Spike (4062804-MS1)		Source: 0406245-02			Prepared & Analyzed: 06/25/04					
Nitrate as N	1.60	0.10	mg/l	1.00	0.57	103	80-120			
Matrix Spike Dup (4062804-MSD1)		Source: 0406245-02			Prepared & Analyzed: 06/25/04					
Nitrate as N	1.60	0.10	mg/l	1.00	0.57	103	80-120	0	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406245

**Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-------

**Batch 4062804**

**Reference (4062804-SRM1)**

Nitrate as N      7.13      0.50      mg/l      7.75      92      86-109      Prepared & Analyzed: 06/25/04

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

9

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406245

### Notes and Definitions

- W-02 The sample for nitrate analysis was preserved with H<sub>2</sub>SO<sub>4</sub> after the nitrite portion of the analysis was completed to extend the holding time for the sample. Nitrate results are corrected for the nitrite contribution per the method.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



## CHAIN-OFF-CUSTODY RECORD

**EnviroMatrix** **E.M.** Analytical, Inc. —

43340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7763  
Fax (858) 560-7717

ITEM LOG #: 117-65X-34

REQUESTED ANALYSIS										RECEIVED BY									
Client:	Address:		Attn:		Sampled by:		Billing Address:		Project:	PO #:	Sample Date	Sample Time	Sample Matrix	Container(s) #	Type	Date/Time	Signature	Print	Company:
									1	418.1 (TRPH)	7/1/01	1422	1	1	1	7/1/01	1422	1	7/1/01
									2	Oil & Grease 413.1	143.2	1664							
									3	TPH (8015B) Gas Diesel									
									4	TPH-Extended 8015B	ASTM D2887								
									5	602 / 8021 BTEX MTEB									
									6	601 / 8021 Purgeable Halocarbons									
									7	608 / 8081 Pesticides									
									8	624 / 8260 Volatile Organics									
									9	625 / 8270 Semi-Volatile Organics									
									10	TCLC Metals (CAC Title 22)									
										STLC Metals (CAC Title 22)									
										TCLP (RCRA) Metals Organics									
										CD Cr Cu Pb Ni Ag Zn									
										Pb EC TSS TDS									

\*Container Types: B=Brass Tube; V=VOA; G=Glass; P=Plastic; O=Other (list)

Tamper-Proof Seals Intact: Yes No N/A      Correct Containers: Yes No  
 Sample(s): Cold Ambient Warm      VOAs w/ZHS: Yes No N/A

All Samples Properly Preserved: Yes No N/A

Disposal: N/C (aqueous) \*EMA (( $\$5.00/\text{sample}$ ) Return Hold

Turnaround Time: 24 hr 48 hr 3 day 4 day 5 day Normal

Comments: 1

**\*EMA** reserves the right to return samples that do not match our waste profile.

---

**EnviroMatrix****Analytical, Inc.**

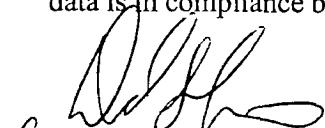
---

29 June 2004

Wiedlin & Associates  
Attn: Matt Wiedlin  
4325 Corte de Sausalito  
San Diego, CA 92130

**EMA Log #: 0406251****Project Name:** Peaceful Valley 170

Enclosed are the results of analyses for samples received by the laboratory on 06/22/04 14:30. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

  
Dan Verdon  
Laboratory Director

CA ELAP Certification #: 1931

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406251

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PV-1 	0406251-01	Water	06/22/04 13:35	06/22/04 14:30

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406251

### Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PV-3 (0406251-01) Water Sampled: 06/22/04 13:35 Received: 06/22/04 14:30									
Nitrate as N	13.2	1.25	mg/l	25	4062804	06/25/04	06/25/04	SM4500 NO3 E	W-02
Total Dissolved Solids	1120	20	"	1	4062513	06/26/04	06/28/04	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406251

**Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4062513**

Blank (4062513-BLK1)					Prepared: 06/26/04	Analyzed: 06/28/04				
Total Dissolved Solids	ND	20	mg/l							
Duplicate (4062513-DUP1)				Source: 0406269-01	Prepared: 06/26/04	Analyzed: 06/28/04				
Total Dissolved Solids	643	20	mg/l		602			7	20	

Reference (4062513-SRM1)

Total Dissolved Solids	260	20	mg/l	284	92	90-110				
------------------------	-----	----	------	-----	----	--------	--	--	--	--

**Batch 4062804**

Blank (4062804-BLK1)					Prepared & Analyzed: 06/25/04					
Nitrate as N	ND	0.05	mg/l							
LCS (4062804-BS1)					Prepared & Analyzed: 06/25/04					
Nitrate as N	0.49	0.05	mg/l	0.500		98	80-120			
LCS Dup (4062804-BSD1)					Prepared & Analyzed: 06/25/04					
Nitrate as N	0.50	0.05	mg/l	0.500		100	80-120	2	20	
Duplicate (4062804-DUP1)				Source: 0406251-01	Prepared & Analyzed: 06/25/04					
Nitrate as N	11.0	1.25	mg/l		13.2			18	20	
Matrix Spike (4062804-MS1)				Source: 0406245-02	Prepared & Analyzed: 06/25/04					
Nitrate as N	1.60	0.10	mg/l	1.00	0.57	103	80-120			
Matrix Spike Dup (4062804-MSD1)				Source: 0406245-02	Prepared & Analyzed: 06/25/04					
Nitrate as N	1.60	0.10	mg/l	1.00	0.57	103	80-120	0	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406251

**Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-------

**Batch 4062804**

Reference (4062804-SRM1)

Nitrate as N      7.13      0.50      mg/l      7.75      92      86-109      Prepared & Analyzed: 06/25/04

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley 170

EMA Log #: 0406251

### Notes and Definitions

W-02	The sample for nitrate analysis was preserved with H <sub>2</sub> SO <sub>4</sub> after the nitrite portion of the analysis was completed to extend the holding time for the sample. Nitrate results are corrected for the nitrite contribution per the method.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

# CHAIN-OF-CUSTODY RECORD

— EnviroMatrix Analytical, Inc. —



4340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7717 • Fax (858) 560-7763

EMA LOG #: 046-1251

Client: **WIEBING ASSOC**

REQUESTED ANALYSIS										EMA DATE/TIME STAMP													
Project:	PO#:	Sample ID:	Sample Date	Sample Time	Sample Matrix	Container(s)	Type	Container #	Sample ID:	Sample Date	Sample Time	Sample Matrix	Container(s)	Type	Container #	Sample ID:	Sample Date	Sample Time	Sample Matrix	Container(s)	Type	Container #	
1	100-100	100	10/22/04	13:30	1				100	10/22/04	13:30	1				100	10/22/04	13:30	1				
2									200	10/22/04	13:30	1				200	10/22/04	13:30	1				
3									300	10/22/04	13:30	1				300	10/22/04	13:30	1				
4									400	10/22/04	13:30	1				400	10/22/04	13:30	1				
5									500	10/22/04	13:30	1				500	10/22/04	13:30	1				
6									600	10/22/04	13:30	1				600	10/22/04	13:30	1				
7									700	10/22/04	13:30	1				700	10/22/04	13:30	1				
8									800	10/22/04	13:30	1				800	10/22/04	13:30	1				
9									900	10/22/04	13:30	1				900	10/22/04	13:30	1				
10									1000	10/22/04	13:30	1				1000	10/22/04	13:30	1				
*Container Types: B=Brass Tube; V=VOA; G=Glass; P=Plastic; O=Other (list)										RELINQUISHED BY										DATE/TIME		RECEIVED BY	
Tamper-Proof Seals Intact: Yes No N/A		Correct Containers: Yes No N/A		Signature		Print		Signature		Print		Signature		Print									
Sample(s): Cold Ambient Warm		VOAs w/ZHS: Yes No N/A																					
All Samples Properly Preserved: Yes No N/A				Company: <i>WIEBING</i>				Signature				Company: <i>WIEBING</i>				Signature							
Disposal: N/C (aqueous) *EMA (@\$5.00/sample)		Return Hold						Signature								Signature							
Turnaround Time: 24 hr 48 hr 3 day 4 day 5 day Normal								Print								Print							
Comments:								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							
								Print								Print							
								Company: <i>WIEBING</i>				Signature				Signature							

---

**EnviroMatrix**



**Analytical, Inc.**

---

02 July 2004

Wiedlin & Associates  
Attn: Matt Wiedlin  
4325 Corte de Sausalito  
San Diego, CA 92130

**EMA Log #: 0407006**

**Project Name:** 170

Enclosed are the results of analyses for samples received by the laboratory on 07/01/04 14:40. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read "Dan Verdon".

**Dan Verdon**  
**Laboratory Director**

CA ELAP Certification #: 1931

Client Name: Wiedlin & Associates  
Project Name: 170

EMA Log #: 0407006

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PVR Hand Dug (PV-2) <i>mwp</i>	0407006-01	Grnd-Water	07/01/04 13:15	07/01/04 14:40

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Client Name: Wiedlin & Associates  
Project Name: 170

EMA Log #: 0407006

**Conventional Chemistry Parameters by Standard/EPA Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PVR Hand Dug (0407006-01) Grnd-Water</b> Sampled: 07/01/04 13:15 Received: 07/01/04 14:40									
Nitrate as N	24.2	1.00	mg/l	20	4070211	07/02/04	07/02/04	SM4500 NO3 E	
pH	6.75	0.10	pH Units	1	4070204	07/01/04	07/01/04	EPA 150.1	
Total Dissolved Solids	1440	20	mg/l	"	4070127	07/01/04	07/02/04	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: 170

EMA Log #: 0407006

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4070127</b>										
Duplicate (4070127-DUP1)		Source: 0406336-01			Prepared: 07/01/04	Analyzed: 07/02/04				
Total Dissolved Solids	1730	20	mg/l		1760			2	20	
<b>Reference (4070127-SRM1)</b>										
Total Dissolved Solids	290	20	mg/l	284	102	90-110				
<b>Batch 4070204</b>										
Duplicate (4070204-DUP1)		Source: 0407002-02			Prepared & Analyzed: 07/01/04					
pH	7.95	0.10	pH Units		7.95			0	20	
<b>Reference (4070204-SRM1)</b>										
pH	8.84	0.10	pH Units	9.10	97	97-103				
<b>Batch 4070211</b>										
Blank (4070211-BLK1)					Prepared & Analyzed: 07/02/04					
Nitrate as N	ND	0.05	mg/l							
<b>LCS (4070211-BS1)</b>										
Nitrate as N	0.49	0.05	mg/l	0.500	98	80-120				
<b>LCS Dup (4070211-BSD1)</b>										
Nitrate as N	0.41	0.05	mg/l	0.500	82	80-120	18	20		
Duplicate (4070211-DUP1)		Source: 0407004-02			Prepared & Analyzed: 07/02/04					
Nitrate as N	ND	0.05	mg/l		ND			20		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: 170

EMA Log #: 0407006

**Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Notes
<b>Batch 4070211</b>									
Matrix Spike (4070211-MS1) Source: 0407004-02 Prepared & Analyzed: 07/02/04									
Nitrate as N	0.48	0.05	mg/l	0.500	ND	96	80-120		
Matrix Spike Dup (4070211-MSD1) Source: 0407004-02 Prepared & Analyzed: 07/02/04									
Nitrate as N	0.46	0.05	mg/l	0.500	ND	92	80-120	4	20
Reference (4070211-SRM1) Prepared & Analyzed: 07/02/04									
Nitrate as N	14.9	1.00	mg/l	7.75		192	0-200		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: No Project

EMA Log #: 0402364

### Notes and Definitions

- QM-4X The spike recovery was outside of the QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- W-02 The sample for nitrate analysis was preserved with H<sub>2</sub>SO<sub>4</sub> after the nitrite portion of the analysis was completed to extend the holding time for the sample. Nitrate results are corrected for the nitrite contribution per the method.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



## CHAIN-OF-CUSTODY RECORD

**EnviroMatrix** **E M** Analytical, Inc. 104 14.70

43340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7717 • Fax (858) 560-7763

EMA LOG #: 04/07/06

REQUESTED ANALYSIS										RECEIVED BY	
										Date/Time	Signature
Project: PO #:										7-1-04	Print
EMA ID#	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container(s) #	Type*					Company: CAC Title 22
1											Signature
2											Print
3	(P/N-3442)										Company: CAC Title 22
4											Signature
5											Print
6											Company: CAC Title 22
7											Signature
8											Print
9											Company: CAC Title 22
10											Signature
*Container Types: B=Brass Tube; V=VOA; G=Glass; P=Plastic; O=Other (list)											
Tamper-Proof Seals Intact: Yes No N/A      Correct Containers: (Yes) No											
Sample(s): Cold Ambient Warm      VOAs w/ZHS: Yes No N/A											
All Samples Properly Preserved: Yes No N/A											
Disposal: N/C (aqueous) *EMA (@\$5.00/sample)      Return Hold											
Turnaround Time: 24 hr. 48 hr. 3 day 4 day 5 day Normal											
Comments:											

Container Types: B=Brass Tube; V=VOA; G=Glass; P=Plastic; O=Other (list)

Amper-Proof Seals Intact:	Yes	No	N/A	Correct Containers: (Yes)
✓	✓	✓	✓	✓

Sample(S): Old Ambient Warm Yes No N/A  
UAS w/ZHS: Yes No

Disposal: N/C (aqueous) \*TMA (@\$5.00/sample) Return Hold

turnaround Time: 24 hr. 48 hr. 3 day 4 day 5 day Normal

Comments:

卷之三

ENEMA reserves the right to return samples that do not match our waste profile.

Goldencrod - Client (Relinquish Samples)

White - EMA      Canary - Accounting      Pink - Client (w/Report)

---

EnviroMatrix



Analytical, Inc.

---

29 March 2005

Wiedlin & Associates

**EMA Log #: 0501289**

Attn: Matt Wiedlin

4325 Corte de Sausalito  
San Diego, CA 92130

**Project Name: Peaceful Valley**

Enclosed are the results of analyses for samples received by the laboratory on 01/27/05 16:34. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read "Dan Verdon".

**Dan Verdon**  
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763  
**Analytical Chemistry Laboratory**

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0501289

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PV-1	0501289-01	Water	01/27/05 14:10	01/27/05 16:34
PV-2	0501289-02	Water	01/27/05 08:40	01/27/05 16:34
PV-3	0501289-03	Water	01/27/05 11:25	01/27/05 16:34
PV-4	0501289-04	Water	01/27/05 13:52	01/27/05 16:34
D	0501289-05	Water	01/27/05 11:55	01/27/05 16:34
E	0501289-06	Water	01/27/05 10:55	01/27/05 16:34
J	0501289-07	Water	01/27/05 09:10	01/27/05 16:34
OW-7	0501289-08	Water	01/27/05 09:51	01/27/05 16:34

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix  Analytical, Inc.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0501289

### Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PV-1 (0501289-01) Water</b> Sampled: 01/27/05 14:10 Received: 01/27/05 16:34									
Nitrate as N	4.59	0.25	mg/l	5	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	7.04	0.10	pH Units	1	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	933	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	
<b>PV-2 (0501289-02) Water</b> Sampled: 01/27/05 08:40 Received: 01/27/05 16:34									
Nitrate as N	ND	0.05	mg/l	1	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	8.06	0.10	pH Units	"	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	749	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	
<b>PV-3 (0501289-03) Water</b> Sampled: 01/27/05 11:25 Received: 01/27/05 16:34									
Nitrate as N	4.93	0.50	mg/l	10	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	6.69	0.10	pH Units	1	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	736	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	
<b>PV-4 (0501289-04) Water</b> Sampled: 01/27/05 13:52 Received: 01/27/05 16:34									
Nitrate as N	12.1	1.25	mg/l	25	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	7.09	0.10	pH Units	1	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	1130	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	
<b>D (0501289-05) Water</b> Sampled: 01/27/05 11:55 Received: 01/27/05 16:34									
Nitrate as N	5.15	0.50	mg/l	10	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	7.00	0.10	pH Units	1	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	1220	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	
<b>E (0501289-06) Water</b> Sampled: 01/27/05 10:55 Received: 01/27/05 16:34									
Nitrate as N	5.30	1.25	mg/l	25	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	7.00	0.10	pH Units	1	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	918	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0501289

### Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>J (0501289-07) Water   Sampled: 01/27/05 09:10   Received: 01/27/05 16:34</b>									
Nitrate as N	0.90	0.10	mg/l	2	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	7.00	0.10	pH Units	1	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	1270	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	
<b>OW-7 (0501289-08) Water   Sampled: 01/27/05 09:51   Received: 01/27/05 16:34</b>									
Nitrate as N	14.7	1.25	mg/l	25	5012812	01/28/05	01/28/05	SM4500 NO3 E	
pH	6.62	0.10	pH Units	1	5012716	01/27/05	01/27/05	EPA 150.1	
Total Dissolved Solids	546	20	mg/l	"	5012704	01/28/05	01/31/05	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0501289

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch 5012704

Duplicate (5012704-DUP1)	Source: 0501263-01			Prepared: 01/27/05 Analyzed: 01/31/05				
Total Dissolved Solids	2420	20	mg/l		2450		1	20
Reference (5012704-SRM1)	Prepared: 01/27/05 Analyzed: 01/31/05							
Total Dissolved Solids	303	20	mg/l	315		96	86-114	

#### Batch 5012716

Duplicate (5012716-DUP1)	Source: 0501289-08			Prepared & Analyzed: 01/27/05				
pH	6.65	0.10	pH Units		6.62		0.5	20
Reference (5012716-SRM1)	Prepared & Analyzed: 01/27/05							
pH	8.84	0.10	pH Units	9.10		97	97-103	

#### Batch 5012812

Blank (5012812-BLK1)	Prepared & Analyzed: 01/28/05								
Nitrate as N	ND	0.05	mg/l						
LCS (5012812-BS1)	Prepared & Analyzed: 01/28/05								
Nitrate as N	0.44	0.05	mg/l	0.500	88	80-120			
LCS Dup (5012812-BSD1)	Prepared & Analyzed: 01/28/05								
Nitrate as N	0.44	0.05	mg/l	0.500	88	80-120	0	20	
Duplicate (5012812-DUP1)	Source: 0501289-02			Prepared & Analyzed: 01/28/05					
Nitrate as N	ND	0.05	mg/l		0.02		67	20	QR-04

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0501289

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 5012812

Matrix Spike (5012812-MS1)		Source: 0501289-02		Prepared & Analyzed: 01/28/05					
Nitrate as N	0.51	0.05	mg/l	0.500	0.02	98	80-120		
Matrix Spike Dup (5012812-MSD1)		Source: 0501289-02		Prepared & Analyzed: 01/28/05					
Nitrate as N	0.50	0.05	mg/l	0.500	0.02	96	80-120	2	20
Reference (5012812-SRMI)		Prepared & Analyzed: 01/28/05							
Nitrate as N	6.70	0.50	mg/l	6.49		103	89-106		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0501289

### Notes and Definitions

QR-04	The RPD between the sample and sample duplicate is not valid since both results are below the reporting limit for this analyte.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

---

EnviroMatrix  Analytical, Inc.

---

**CHAIN-OF-CUSTODY RECORD**



**EnviroMatrix** **E M** Analytical, Inc.—

4340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7717 • Fax (858) 560-7763

EMA DATE/TIME STAMP

EMA LOG #: 0501289

\*EMA reserves the right to return samples that do not match our waste profile.

Pink - Client (W/Benign)      Goldenrod - Client (Reinquisish Samples)

---

EnviroMatrix



Analytical, Inc.

---

23 February 2005

Wiedlin & Associates

**EMA Log #: 0502230**

Attn: Matt Wiedlin

4325 Corte de Sausalito

San Diego, CA 92130

**Project Name: Peaceful Valley**

Enclosed are the results of analyses for samples received by the laboratory on 02/16/05 11:30. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read "Dan Verdon".

**Dan Verdon**  
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763  
**Analytical Chemistry Laboratory**

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0502230

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PV-4-A	0502230-01	Water	02/15/05 10:26	02/16/05 11:30
PV-4-P	0502230-02	Water	02/15/05 16:13	02/16/05 11:30

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

EnviroMatrix  Analytical, Inc.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0502230

### Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PV-4-A (0502230-01) Water Sampled: 02/15/05 10:26 Received: 02/16/05 11:30									
Nitrate as N	11.0	1.25	mg/l	25	5021618	02/16/05	02/17/05	SM4500 NO3 E	
Total Dissolved Solids	1060	20	"	1	5021702	02/17/05	02/18/05	SM2540 C	
PV-4-P (0502230-02) Water Sampled: 02/15/05 16:13 Received: 02/16/05 11:30									
Nitrate as N	9.75	1.25	mg/l	25	5021618	02/16/05	02/17/05	SM4500 NO3 E	
Total Dissolved Solids	1060	20	"	1	5021702	02/17/05	02/18/05	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0502230

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-------

#### Batch 5021618

Blank (5021618-BLK1)					Prepared: 02/16/05	Analyzed: 02/17/05			
Nitrate as N	ND	0.05	mg/l						
LCS (5021618-BS1)					Prepared: 02/16/05	Analyzed: 02/17/05			
Nitrate as N	0.47	0.05	mg/l	0.500	94	80-120			
LCS Dup (5021618-BSD1)					Prepared: 02/16/05	Analyzed: 02/17/05			
Nitrate as N	0.52	0.05	mg/l	0.500	104	80-120	10	20	
Duplicate (5021618-DUP1)		Source: 0502191-02			Prepared: 02/16/05	Analyzed: 02/17/05			
Nitrate as N	ND	0.05	mg/l		ND			20	
Matrix Spike (5021618-MS1)		Source: 0502191-02			Prepared: 02/16/05	Analyzed: 02/17/05			
Nitrate as N	0.59	0.05	mg/l	0.500	ND	118	80-120		
Matrix Spike Dup (5021618-MSD1)		Source: 0502191-02			Prepared: 02/16/05	Analyzed: 02/17/05			
Nitrate as N	0.60	0.05	mg/l	0.500	ND	120	80-120	2	20

#### Batch 5021702

Duplicate (5021702-DUP1)		Source: 0502202-01			Prepared: 02/17/05	Analyzed: 02/18/05			
Total Dissolved Solids	1080	20	mg/l		1040			4	20
Reference (5021702-SRM1)					Prepared: 02/17/05	Analyzed: 02/18/05			
Total Dissolved Solids	271	20	mg/l	296	.	92	90-110		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: Peaceful Valley

EMA Log #: 0502230

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



## **CHAIN-OF-CUSTODY RECORD**



**EnviroMatrix** Analytical, Inc.—

4340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7717 • Fax (858) 560-7763

EMA LOG #: 0502230

Client: 10.10.10.100 Message:

Address: 4325 Monte de Oro  
 San Diego, Ca 92130  
 Attn: MOTT Wiedlin  
 Sammled Hwy. 11  
 Phone: 8558-259-6732  
 Fax: 759-6794

Dollie A. 11

Project: Peaceful Valley PO #:

EMA ID #	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container(s) #	Type*
1	AV-4-A	2/15	10:26	W	1	P
2	AV-4-P	1/13	16:13	W	1	P
3						
4						
5						
6						
7						
8						
9						

Scammon Tuna: D-Brown Tuna: V-NVA: C-Glass: O-Ocean Glass:

Container types: b-Diass tube, v-vials, q-Glass, <del>q-Plastic</del> , o-Outer (list)		RECEIVED BY		DRIVER NAME	RECEIVED BY
Tamper-Proof Seals Intact: Yes	No <input checked="" type="checkbox"/>	Correct Containers:	<input checked="" type="checkbox"/> No	Signature <i>DwC</i>	<i>John J. Gaffey</i>
Sample(s): <input checked="" type="checkbox"/> Ambient	Warm	VOAs w/ZHS:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Print <i>D W CHAMBERS</i>	Print <i>1/16/05</i>

All Samples Properly Preserved: Yes No N/A Company: WIT/CEG Signature: [Signature] Date: 7/16/15 Company: EnviroChem Signature: [Signature] Date: 7/16/15

Turnaround Time: 24 hr 48 hr 3 day 4 day 5 day Normal Print J. Scott  
Comments: Empty Company: EMMA Date: 2/10/03 Print A. CONNIE  
Company: EMMA.

	Signature
	Print

**\*EMA** reserves the right to return samples that do not match our waste profile.

卷之三

卷之三

---

EnviroMatrix



Analytical, Inc.

---

25 February 2005

Wiedlin & Associates

EMA Log #: 0502242

Attn: Matt Wiedlin

4325 Corte de Sausalito  
San Diego, CA 92130

**Project Name:** [none]

Enclosed are the results of analyses for samples received by the laboratory on 02/17/05 10:26. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read "Dan Verdon".

**Dan Verdon**  
**Laboratory Director**

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763  
**Analytical Chemistry Laboratory**

Client Name: Wiedlin & Associates  
Project Name: [none]

EMA Log #: 0502242

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PV-4-16	0502242-01	Water	02/16/05 09:05	02/17/05 10:26

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Client Name: Wiedlin & Associates  
Project Name: [none]

EMA Log #: 0502242

### Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PV-4-16 (0502242-01) Water   Sampled: 02/16/05 09:05   Received: 02/17/05 10:26</b>									
Nitrate as N	10.5	1.25	mg/l	25	5021618	02/16/05	02/17/05	SM4500 NO3 E	
Total Dissolved Solids	1080	20	"	1	5022319	02/23/05	02/25/05	SM2540 C	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix  Analytical, Inc.

Client Name: Wiedlin & Associates  
Project Name: [none]

EMA Log #: 0502242

### Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch 5021618

Blank (5021618-BLK1)					Prepared: 02/16/05	Analyzed: 02/17/05				
Nitrate as N	ND	0.05	mg/l							
LCS (5021618-BS1)					Prepared: 02/16/05	Analyzed: 02/17/05				
Nitrate as N	0.47	0.05	mg/l	0.500	94	80-120				
LCS Dup (5021618-BSD1)					Prepared: 02/16/05	Analyzed: 02/17/05				
Nitrate as N	0.52	0.05	mg/l	0.500	104	80-120	10	20		
Duplicate (5021618-DUP1)		Source: 0502191-02			Prepared: 02/16/05	Analyzed: 02/17/05				
Nitrate as N	ND	0.05	mg/l		ND				20	
Matrix Spike (5021618-MS1)		Source: 0502191-02			Prepared: 02/16/05	Analyzed: 02/17/05				
Nitrate as N	0.59	0.05	mg/l	0.500	ND	118	80-120			
Matrix Spike Dup (5021618-MSD1)		Source: 0502191-02			Prepared: 02/16/05	Analyzed: 02/17/05				
Nitrate as N	0.60	0.05	mg/l	0.500	ND	120	80-120	2	20	

#### Batch 5022319

Duplicate (5022319-DUP1)		Source: 0502242-01			Prepared: 02/23/05	Analyzed: 02/25/05				
Total Dissolved Solids	1090	20	mg/l		1080			0.9	20	
Reference (5022319-SRM1)					Prepared: 02/23/05	Analyzed: 02/25/05				
Total Dissolved Solids	281	20	mg/l	296	95	90-110				

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Wiedlin & Associates  
Project Name: [none]

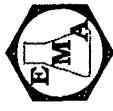
EMA Log #: 0502242

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**CHAIN-OF-CUSTODY RECORD**



EnviroMatrix—Analytical, Inc.—

4340 Viewridge Ave., Ste. A • San Diego, CA 92123 • Phone (858) 560-7763 Fax (858) 560-7763

EMA LOG #: 05022212

WIEDLIC Fassade  
Carr de Sants 1170  
Sants Districte 9. C.A.

Chen

Attn: MATT WIEDELYN Phone: 858 259 6732

Sample 1

Sampled by: D W Chapman Fax:

#### **Pilline Address:**

10

20

EMA ID#	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container(s) #	Type*	RECEIVED BY	DATE/TIME
1	PV-4-16	7/16/05	9:05	W	1	P	<i>Dew Chambers</i>	2-17-05 10:24
2							<i>Dew Chambers</i>	
3							<i>Dew Chambers</i>	
4							<i>Dew Chambers</i>	
5							<i>Dew Chambers</i>	
6							<i>Dew Chambers</i>	
7							<i>Dew Chambers</i>	
8							<i>Dew Chambers</i>	
9							<i>Dew Chambers</i>	
10							<i>Dew Chambers</i>	
*Container Types: B=Brass Tube; V=VOA; G=Glass; P=Plastic; O=Other (list)							Signature: <i>Dew Chambers</i>	
Tamper-Proof Seals Intact: Yes No N/A							Signature: <i>Dew Chambers</i>	Date: 2-17-05
Samples: Cold Ambient Warm							Print	Print
VOA w/ZHS: Yes No N/A							Company: <i>w/ a CES</i>	Company: <i>w/ a CES</i>
All Samples Properly Preserved: Yes No N/A							Signature: <i>w/ a CES</i>	Signature: <i>w/ a CES</i>
Disposal: (aqueous) *EMA (@\$5.00/sample) Return Hold							Signature: <i>w/ a CES</i>	Signature: <i>w/ a CES</i>
Turnaround Time: 24 hr 48 hr 3 day 4 day 5 day Normal							Print	Print
Comments:							Company: <i>w/ a CES</i>	Company: <i>w/ a CES</i>
150e							Signature: <i>w/ a CES</i>	Signature: <i>w/ a CES</i>
							Print	Print
							Company: <i>w/ a CES</i>	Company: <i>w/ a CES</i>

\*EMA reserves the right to return samples that do not match our waste profile.

Goldenrod - Client (ReInquish Samples)

Canary - Accounting Blink - Client (w/Report)

**APPENDIX C**  
**RANCHO JAMUL ESTATES POPULATION INFORMATION**

**APPENDIX C**  
**RANCHO JAMUL ESTATES POPULATION INFORMATION**

Lot No.	No. of People Residing at Address	Comments	Lot No.	No. of People Residing at Address	Comments
076	1		016		Not Reported
039	2		034		2
045	Not Reported		066		2
050	6		065		3
096	4		017		Not Reported
071	2		103		3
093	Not Reported		068		Not Reported
10, 11, 86	3		049		Not Reported
018	4		098		4
001	2		004		Not Reported
006	Not Reported		088		Not Reported
100	Not Reported		031		Not Reported
026	Not Reported		092		2
104	2		077		4
067	Not Reported		037		2
044	Not Reported		101		Not Reported
047	Not Reported		089		2
040	Not Reported		009		4
105, 069	3		091		Not Reported
099	Not Reported		Not Reported		Not Reported
070	3		081		2
029	Not Reported		052		2
102	Not Reported		051		Not Reported
095	8		003		4

**Wiedlin & Associates, Inc.**  
*Applications in Groundwater Science*

Lot No.	No. of People Residing at Address	Comments	Lot No.	No. of People Residing at Address	Comments
063	Not Reported		012	Not Reported	
041	Not Reported		048	Not Reported	
033	Not Reported		046	Not Reported	
025	Not Reported		013	2	
053	Not Reported		061	Not Reported	
060	4		023, 024	Not Reported	
035	Not Reported		038	Not Reported	
062	3		074	4	
080	4		083	2	
097	Not Reported		073	1	
028	Not Reported		079, 082	Not Reported	
032	Not Reported		084, 085	Not Reported	
021	1		015	1	
043, 087	Not Reported		027	Not Reported	
072		No House	022		No House
090		No House	094	4	
036	Not Reported		008	Not Reported	
042	Not Reported		030	Not Reported	
007	Not Reported		064	3	